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JOURNAL

of the

AMERICAN

VETERINARY MEDICAL

ASSOCIATION

UNIVERSITY OF CALIFORNIA

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VOLUME XCIX, NUMBER 775

OCTOBER 1941

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FOREIGN LANGUAGE ABSTRACTING: Chas. H. Haasjes (Dutch), E. E. Hamann (German), A. G. Karlson (Scandinavian).

\$5.00 per annum.

Foreign \$6.00; Canada \$6.00

Single Copies 75 cts. prepaid in U. S.

Published monthly at 600 S. Michigan Ave., Chicago, Ill., by the American Veterinary Medical Association. Entered as second class matter August 10, 1932, at the Post Office at Chicago, Illinois, under the act of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 538, act of February 28, 1925, authorized August 10, 1932. Contents copyright 1941. Reproduction of any part of this publication is prohibited, unless special permission is given. Permission will be given if the purpose seems justifiable and, in signed articles, if the rights or requests of the author are not violated thereby. Reprints should be ordered in advance. Prices will be quoted after publication. Please send prompt notice of change of address, giving both old and new. Advise whether the change is temporary or permanent. Address all correspondence to American Veterinary Medical Association.

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Journal of the American Veterinary Medical Association

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600 S. Michigan Ave., Chicago, Ill.

VOL. XCIX

OCTOBER 1941

NO. 775

The Conquest of Brucellosis in Animals and Its Relation to Human Health*

JOHN R. MOHLER, V.M.D., A.M., D.Sc.
Washington, D. C.

I AM GRATEFUL for the honor and fully appreciate the responsibility of having been selected to deliver the Dr. George M. Kober lecture on the important subject of brucellosis before the scientific gathering here this evening.

I am sure that we all have a common interest in the problem of brucellosis, a disease that afflicts both man and his domestic animals. In turbulent times such as we are now experiencing, we also have a common interest in our national defense and resources. And, if you will pardon a seeming digression, I wish to point out briefly how the threat of a serious disease and the menace of foreign military powers have much in common as enemies of this free country.

With many branches of government and industry taking up new duties and responsibilities, it is natural for every capable man and woman to seek to render the most useful service—to devote his or her energy and ability along the most productive lines.

*The "Lectureship Honor of the Year," a prize sponsored by the Kober Foundation of Georgetown University through the Medical Society of the District of Columbia, was awarded in March of 1941 to John R. Mohler, chief of the Bureau of Animal Industry, U. S. Department of Agriculture. The paper published herewith was presented, in response, at Gaston Hall, Georgetown University, March 28, 1941.

ENLIGHTENING MANKIND WITH USEFUL KNOWLEDGE

Through review of historic events we find the present surge of patriotic endeavor analogous to many previous waves of human effort. This is the same cause, in substance, to which leaders of mankind long ago dedicated themselves—to fight in self-protection against all dangers, including disease with its attendant economic ills, to banish famine by establishing dependable food resources, and to enlighten mankind.

To be sure, there is little fanfare in the scientific laboratory, but there have long been devotion, diligence and productivity. There has been self-sacrifice to the point of martyrdom. To the younger workers and the students who will follow in our footsteps I want to say that the battle of science, as we may aptly call it, is by no means fully won. Our predecessors and our own generation have gained ground, have made notable advances, but entrenched against us is still an array of formidable disease enemies. The attack, on our part, leads at times through fields of disheartening public indifference, smoke screens of prejudice and entanglements of old traditions. And finally, the reward is largely the satisfaction of knowing that we have served in a worthy cause. In brief, re-

search workers and administrators of human and animal disease programs are almost constantly engaged in resisting the aggression of diseases or in carrying the attack forward into enemy territory. One of these enemies, and a formidable one, is brucellosis.

This term, brucellosis, as used in modern scientific literature refers to all of the diseases and manifestations caused by the *Brucella* group of microorganisms. The name is a fitting recognition of Sir David Bruce, who discovered and isolated the first species of the genus in 1887. That was the organism now known as *Brucella melitensis*, found in raw goat's milk and the cause of the disease variously called undulant fever, Malta fever, Mediterranean fever and other names. Some nine years later the Danish veterinarian, Bernard Bang, was successful in isolating the germ that is responsible for the disease then known as contagious or infectious abortion of cattle. Later this malady was named Bang's disease and, still more recently, bovine brucellosis.

For more than two decades the two organisms were commonly thought to be unrelated. Then, in 1918, Alice Evans, while still a member of the staff of the Bureau of Animal Industry, but now with the U. S. Public Health Service, discovered their close relationship as observed culturally, morphologically and in their response to the agglutination test. This discovery forged an important link, connecting the disease of cattle with that of man. Evans' results were confirmed by Meyer and Shaw, the latter writers suggesting the more fitting name, *Brucella*, for this group of organisms.

Subsequent research has widened the horizon of scientific knowledge as to the various species of the genus and the victims of their attack. In addition to affecting man, goats and cattle, already mentioned, the *Brucella* group attacks swine, sheep, horses, poultry and occasionally other animals. Of particular note is the fact that it is world wide in distribution and most prevalent in areas where the

infection is widespread among cattle, hogs and goats. The disease in man is acquired from such infected animals either directly or from their raw products. Infection from goats is relatively rare in the United States. This is fortunate since the *melitensis*, or goat species of the group, is the most invasive and causes the severest disease; *Br. suis* is next in these respects and *Br. abortus* is the least virulent of the three.

The principal scientific literature on brucellosis already involves more than 400 references, to which frequent additions may be expected from both medical and veterinary sources. Containing as it does many case histories involving death and serious illness in man, the literature constitutes an imposing police record, so to speak, against this microscopic public enemy.

INTIMATE CONTACT WITH HUMAN CASES

The Bureau of Animal Industry's work has, appropriately, dealt chiefly with the lower animals. Nevertheless, the infection as it relates to human beings has forced itself upon our attention. Our first study of bovine brucellosis, then known as infectious abortion of cattle, was referred to in the annual report of the Bureau of Animal Industry for 1900, and the first research in this country of caprine brucellosis, or Malta fever of goats, was described by the speaker and his assistant, Dr. George H. Hart, in the Bureau's annual report for 1908.

The latter report refers to the importation, by the Bureau of Animal Industry, of 65 Maltese goats from the Island of Malta by the late George F. Thompson, who was detailed to make the importation by Dr. Salmon, then chief of the Bureau. The goats arrived in the United States on September 23, 1905, were immediately taken to the quarantine station at Athenia, N. J., and thence to our experiment station at Bethesda, Md. During the voyage from Malta to Antwerp on the steamship Joshua Nicholson, most of the crew drank the milk of the goats. At Antwerp, eleven of the

crew left the ship and it was reported by the captain later that three of this number remained in the hospital at Antwerp with symptoms similar to those of Malta fever. The twelve remaining members proceeded with the ship to London after a two-week stay in Antwerp. A few weeks later eight of these men developed Malta fever. The goats were reëmbarked in Antwerp on the steamship *St. Andrew*, and again some of the latter's crew consumed the goat milk, not having learned of the illness of the sailors on the *Joshua Nicholson*.

After arrival of the goats in the United States only two persons drank the milk, one of these being Mr. Thompson who, doubting the idea that Malta fever could be conveyed by goat's milk, had consumed it in considerable quantities. He had complained of liver trouble and was never perfectly well after his return to America. A short time before his death, he remarked that his ailment might be Malta fever and suggested that I examine his blood, but unfortunately this was not done, for on the morning of my arrival at his residence to collect a blood sample, I was met by the undertaker who had just embalmed the body. His death on January 6, 1906, was ascribed to pneumonia.

The other person was an elderly lady, living at the Athenia quarantine station, who used it daily for some time. She was taken with fever and painful swelling of the joints in October 1905 and passed through a typical attack of Malta fever diagnosed by the symptoms and from the fact that her blood gave a positive agglutination reaction for undulant fever. The history of this case is absolutely negative as to contact infection or any other exposure except the milk. She made a good recovery and died of cerebral hemorrhage 16 years later, aged 86.

This disease, which simulates typhoid fever, was so prevalent among the British soldiers and sailors stationed on the Island of Malta that in 1904 a commission was appointed by the English government to investigate the possible sources of infection and advise methods for its control. As early as 1905, the Commission considered

that the milk from Malta goats was an important if not the main factor in the dissemination of this disease among human beings. Subsequent experiments showed that about 50 per cent of the 20,000 goats on that island were affected with the disease. The British Royal Society, hearing of the intended importation of these goats into the United States, notified the Department of its studies in a letter received September 16, 1905, at which time the goats were on the way from Antwerp. The Pathological Division, of which I had the honor of being chief, was directed to take steps to ascertain if any of the goats upon arrival at our quarantine station were infected with the organism of Malta fever. At that time much skepticism prevailed concerning the danger of infection from goats, especially when they were choice animals apparently in excellent physical condition. However, as a result of our studies, which lasted more than a year, over 50 per cent were found to harbor the Malta fever organism. By this time it was recognized that the use of the goats for the purpose for which they had been imported would be accompanied with serious results. It was, therefore, decided to dispose of the herd. In November 1906, therefore, all of the remaining goats, including the kids, were destroyed.

STUDIES WITNESSED BY DR. KOBER AND ASSOCIATES

As a noteworthy coincidence may I mention that Dr. Kober was personally interested in this investigation and for that reason I have described the importation in some detail. Knowing of his work and also that of Dr. G. Lloyd Magruder, former professor of therapeutics and dean of the Georgetown Medical School, and Mr. Emil Berliner, inventor and philanthropist, in connection with milk-borne diseases, especially typhoid fever and tuberculosis, I invited these gentlemen to visit our experiment station to see the results we were obtaining. They accepted and were among the first to witness the laboratory studies on milk-borne undulant fever in this country.

These studies demonstrated that the organism of Malta fever has a more or less passive existence in the tissues of Maltese goats, exercising its pathogenic effect when it gains entrance into the human body, largely through the ingestion of infected raw milk. Confirmatory evidence of this fact is forthcoming from the result of regulations that have since been enforced on the Island of Malta. All fresh milk now being supplied to the soldiers and sailors at that point is pasteurized, with the result that Malta fever has been practically eliminated from the military forces.

In 1905, about the time of our Maltese goat importations, Craig reported a case of Malta fever in Washington, D. C., which occurred in a nurse who had never been out of this country, the disease in this instance having possibly been contracted from drinking raw milk, although she did nurse atypically infected soldiers from the Philippine Islands. He also reported nine cases in soldiers who probably became infected while in the Philippines. Later, in 1911, Gentry and Ferenbaugh definitely established the existence of Malta or undulant fever among certain goat-raising families in Texas, and the goats were incriminated by the agglutination test as carriers of the infection. The following year, 1912, Mohler and Eichhorn reported that the complement-fixation test is applicable to the study of Malta fever and can be used to advantage as an adjunct in the diagnosis of this malady.

Since then the work of our bureau has resulted in the basic discovery by Schroeder and Cotton, and simultaneously by Theobald Smith and Fabian, that the udder of the cow is a reservoir of *Br. abortus*, resulting in the contamination of the milk supply; the isolation by Mohler and Traum of *Br. abortus* from the tonsils of a child; the pioneer report of Traum of recovering *Br. suis* from aborted fetuses of swine; the monumental work of Alice Evans previously referred to; and the production of a method of calfhood vaccination as a part of the national eradication program for bovine brucellosis.

During these studies brucellosis has

occurred eleven times among the scientists and their helpers in the Bureau of Animal Industry, a not infrequent occurrence in *Brucella* laboratories, and included infection by all three species—*abortus*, *suis* and *melitensis*. The portal of entry could be positively determined in only one instance, in which a suspension of *Br. abortus* was accidentally instilled in the eye when a syringe broke.

The symptoms were manifold and differed considerably in each case, but a composite picture is as follows: In the early, acute stage the condition was mistaken for grippe, the symptoms being malaise, fever, headache, regional pains and night sweats. The continuation of these symptoms, in spite of the usual treatment for grippe, followed by a positive agglutination test, led to the proper diagnosis. Although the temperature curve gave birth to the name undulant fever, these waves were neither constant nor regular. Some cases were afebrile, whereas in others the fever disappeared entirely, only to recur after weeks of apparent health. In the more chronic form pronounced weakness was invariably present, with attendant loss of weight, sleeplessness and constipation, and in one case orchitis was a complication.

In these chronic cases also a positive blood titer was obtained to the agglutination test for brucellosis. A titer of 1:100,000 was recorded in one case, a striking example of the body response to this infection. The most salient factor in the protracted or chronic form was the effect on the central nervous system. In practically all cases symptoms of irritability, melancholia, apprehensiveness or neurasthenia were present. The only death to occur was that of a young helper who became delirious, jumped out of a fourth story window, and died immediately. One case is of interest in that the inhalation of fumes resulting from the separation of *Brucella* organisms in an unenclosed super-centrifuge caused allergic reactions following apparent recovery. After inclosure of the machine and installation of an exhaust fan, no further recurrence was noted.

Relative to treatment, data from these

cases are insufficient to warrant any specific conclusion. In one case in which sulfanilamide was used in *Br. abortus* infection, a cure appeared to have been effected through heavy, continued dosage. In one case of *Br. suis* infection, mercurochrome intravenously had a marked effect on altering the course of the disease, but did not remove the organism from the blood or prevent localization. In this case methyl violet, which is antagonistic to the growth of *Br. suis in vitro*, undoubtedly was bacteriostatic in the intestinal localization by oral feeding and rectal injection. The agent which produced the most striking cure, especially since the case was caused by *Br. melitensis*, was "brucellin," a biologic product prepared from *Brucella* organisms by Dr. I. F. Huddleson in the laboratories of Michigan State College. In Tice's *Practice of Medicine*, Simpson seems to give preference to vaccine therapy in the treatment of human cases and "reserves artificial fever therapy for those refractory patients who do not respond to vaccine therapy." Debono, in Huddleson's *Brucellosis in Man and Animals*, states that the only methods of treatment found satisfactory are intravenous injections of trypaflavin and intradermic injections of brucellin, but the choice of any treatment is a matter of clinical experience.

In 1927, when the U. S. Public Health Service first collected reports of brucellosis in the United States, only 112 cases were recorded, but by 1937 the number had increased to 2,497 and it was stated, "The total number of cases actually occurring is undoubtedly much larger than that reported." It was also stated that "if all milk were efficiently pasteurized or boiled before being consumed, there would be no brucellosis except in those occupational groups whose work brings them into contact with infected animals or infected carcasses."

This is a simple precaution which we all can observe. The first area of its size to make pasteurization of milk compulsory was the Province of Ontario, whose legislature passed such a bill in 1938. The report of progress shows that in the follow-

ing year undulant fever was reduced 45 per cent and typhoid fever 50 per cent. It is apparent, therefore, that pasteurization is a practical method of preventing milk-borne brucellosis. When the disease is produced by the swine type as a result of handling infected swine or their raw products, reliance must be placed upon education and the adoption of sanitary measures of prevention.

From the foregoing examples you will appreciate our rather intimate contacts with the human phases of the disease, in addition to the many impersonal studies that are a part of thoroughgoing research. For instance, available data indicate that human brucellosis occurs most often in men, about one fourth as frequently in women, and still less often in children. The large proportion of male patients is explained by the fact that men more frequently handle infected animals and their products.

In voicing these sidelights on the brucellosis problem in man, my purpose is to show our interest in the human health phase of the subject. Whether the danger of transmittal from the lower animals to man is great or small, the fact that some danger exists is sufficient to stimulate efforts toward eradication. Without proof to indicate that the disease spreads from man to man, the general adoption of preventive measures mentioned would sever the threads of infection between man and his domestic animals, at which time, as Huddleson has pointed out, human brucellosis would become a disease of the past, not a disease of the future.

RESEARCH WORKERS ARE SPEARHEAD OF ADVANCE

My message to you on brucellosis in domestic animals is much more concrete and definite. The driving force has been largely economic necessity and the spearhead of attack has consisted of a relatively small group of research workers. Their chief mandate has been to devise means to stop the appalling ravages of brucellosis among livestock, especially cattle. This malady, by destroying calves usually before

they are born, strikes at the very roots of cattle breeding and herd improvement. It impairs milk production, thus causing further loss. It has led states to set up quarantine barriers against other states. Such barriers have retarded the normal distribution of good breeding stock which, if healthy, would be advantageous to stock raising and to our national resources. Fifty million dollars annually was a conservative appraisal of the tangible loss alone about the time that Congress directed the Bureau of Animal Industry to attack the problem of control.

In undertaking to conquer animal disease we have followed a procedure which is basically simple, notwithstanding its varied scientific phases and complexities of administration. The first step consists in the crystallization of public opinion into a fairly definite objective to determine what the public desires and will support. This leads naturally to legislative authority to attack the problem. The next step is research. Then follows a succession of research progress reports. Not until these reports, when critically analyzed, show the disease enemy to be vulnerable to some proposed form of attack are we ready to begin the campaign. In the meantime we have obtained the support of sanitary officials, veterinarians, breeders, journalists, industrial leaders, transportation officials and other coöperators.

The actual campaign may take a few years or many. The fight against bovine tuberculosis is in its twenty-third year of organized attack. That against the cattle tick is in its thirty-fifth year. Of 15 states originally tick infested, only two counties in Florida and a narrow border along the Rio Grande River still remain in quarantine. Other campaigns involve less time. But in all cases the attack is unrelenting and thus far has always succeeded. To be sure, we experience some setbacks, but these have been temporary.

SCIENTIFIC APPROACH THROUGH RESEARCH

With that general plan of operation in mind let us now trace the various steps as they relate to the suppression of animal

brucellosis. One of the early prescriptions for abortion was to burn pigeon feathers on a pan of coals and compel the animal to inhale the smoke. The first scientific approach was to explore the field of chemotherapy, through the use of drugs and chemicals. Bräuer of Germany and Pearson of the United States, among others, suggested treatments involving solutions of carbolic acid. During the early part of the present century some experiment station bulletins and articles advocated subcutaneous injections of this chemical and also feeding it for periods of several months.

In 1913, Rich of Vermont advocated methylene blue as a remedy, but in spite of the vivid blue coloring of many stable floors and barnyards, the abortion organism continued to live in the treated animals. Upwards of a score of other medicinal remedies were advanced and hailed as curative agents, some being drugs of recognized value for other purposes. One of them, sulfanilamide, although reported as beneficial in treating human brucellosis, failed in careful tests to reduce the number or virulence of *Br. abortus* organisms in infected cattle. It is noteworthy that the disease, in the bovine species, runs a course in the acute form and then becomes quiescent. The animal, although still infected, shows no outward symptoms and may even produce normal or apparently normal calves. Still she harbors the infection that is so dangerous to expected calf crops and to the owner's entire breeding program.

Under such circumstances you will readily appreciate that manufacturers of proprietary remedies were able to reap a financial harvest for a time. When improvement followed the administration of a drug, it was logical to give the drug the credit. It was a simple matter, therefore, for manufacturers and distributors of drugs to obtain testimonials from cattle owners who honestly thought that the drugs had been beneficial. But days of reckoning came. Wishful thinking proved to be a fallacy. And when a year or two after a drug was used the disease struck again, perhaps harder than before, and when the owner took stock of his new losses plus his out-

lay for the ineffective drug, popular demand for real relief became doubly insistent.

Research had failed to disclose a satisfactory medicinal product and the prospects of success in that field were so slight that workers took up the next possibility. Among the specialists who had not been able to confirm the claims for various drugs were Huddleson, Graham, Thorp and Cotton and Buck. The last two, as former research workers of the Bureau's Animal Disease Station, made an exhaustive study of sanitary procedures in connection with herd management. From their work and that of others evolved several effective practices. One was to keep cows and their newborn calves in maternity stalls until all discharges of infective material ceased. Another was to segregate reacting from non-reacting animals. In these and other methods of management the essential point was the suppression of exposure.

The principle involved was sound. It led to freeing many herds from infection. It is still valuable under favorable conditions, involving close supervision and an ample number of careful employés. It was, however, not workable in the majority of herds, so the search for a better method continued.

In annual meetings and general discussions we compared notes on what we had learned since the previous year. We reported, for instance, that although brucellosis is classed as a breeding disease, breeding operations had little to do with its spread. We were able to assemble information along various lines, but much of it dealt with negative findings and lacked a basis for a positive plan of attack. Meanwhile Schroeder, Cotton and Buck of the Bureau's staff were studying bacterins, vaccines and immune serum therapy. This biologic approach to the problem was paralleled by similar studies by other workers in the United States and abroad. It proved to have one highly encouraging feature: Though failing to disclose any curative agents, it showed that in many cases vaccines increased resistance to the disease. But the commercial production of the vac-

cine led to serious consequences. In some cows the vaccine localized in the udder and the animals became chronic carriers of the organism.

In his experiments, however, Dr. Buck had observed among his many cultures of the *Brucella* organism one, No. 19, that retained the same characteristics over a long period. When cultured over and over, this organism, unlike others, maintained the same virulence. Moreover, he found that its virulence was mild—not enough to cause the disease although sufficient to create a reaction to the agglutination test used in detecting animals that harbor the germ. Unlike the dangerous virulent cultures, No. 19 did not localize in the udder. Then, to be doubly safe in using the culture, Buck decided to conduct his immunizing tests with calves about 5 or 6 months of age, before the udder developed to its normal size and function.

While research along that line was in progress to test the soundness of his plan, other forces, economic and political, entered the field. As a phase of agricultural adjustment the federal government and the various states, in July 1934, undertook to reduce the number of cattle in the United States. It was obviously sensible and practical to weed out the diseased animals first. Therefore, the campaign that was already in progress against bovine tuberculosis was intensified and a parallel plan was set up to combat bovine brucellosis. In both cases the method involved a diagnostic test to detect the diseased cattle. The procedure likewise included, in both cases, the slaughter of reactors and the payment of indemnity for them.

As evidence of interest and coöperation, so many cattle owners offered their herds to be tested that there have been waiting lists in most states. Viewed from a national economic standpoint, the plan has been highly effective. It accomplished the purpose for which it was chiefly intended, namely, to reduce the number of cattle. It has also reduced infection to a measurable degree. Besides providing for the slaughter of reactors the plan includes certain safeguards, such as cleaning and disinfect-

tion of premises, to lessen the chance of reinfection. Hundreds of herd owners have voiced their satisfaction, citing benefits derived.

During the first year of our coöperative work the percentage of cattle reacting to the test for brucellosis was 11.5, involving about 40 per cent of the herds tested, whereas by 1940 the percentage of reactors had been reduced to 2.5, involving less than 10 per cent of the herds tested. Last year about 7 million tests were applied, some of which were re-tests. We now have over 350 counties that are modified accredited for bovine brucellosis, which means that in those counties infection has been brought under control.

"PROBLEM HERDS"

On the other hand, veterinarians engaged in field operations have reported so-called problem herds in which brucellosis still persists in spite of close supervision and periodic retesting. The test-and-slaughter method, also, is rather expensive when indemnity is paid year after year, but because of its general effectiveness, in spite of such drawbacks, this method has been continued and is still in operation.

Now let us go back to our story of Dr. Buck's work with his culture No. 19. In the meantime Dr. Cotton, who supervised much of the research, had been retired from public service and Dr. Buck, a few months later, died of coronary thrombosis. Those of my audience who have a flair for Greek history may see in this account a semblance to the wanderings of Ulysses, including the loss of several heroic comrades before reaching his goal. Notwithstanding these interruptions, there was still a job to be done and the attack against disease, according to our traditions, must be unrelenting.

The Bureau, therefore, obtained the services of Dr. Adolph Eichhorn, widely known as a research pathologist, to direct the Animal Disease Station. With the assistance of Dr. A. B. Crawford and other staff members, the work of perfecting the vaccine and testing it thoroughly went forward. But Nature can not be hurried. By

assembly-line methods man has speeded up the production of automobiles and airplanes, but in dealing with the placid cow our anxiety for quick results is of no avail. In testing a vaccine for brucellosis we must wait for the normal gestation period to be completed several times, to be even reasonably certain of the results. We have, however, now obtained data from approximately 260 infected herds in 24 states, involving the vaccination of more than 17,000 calves.

When they matured and were bred, about 96 per cent of the calves had normal pregnancies. Of the abortions that occurred—which may, of course, be due to various causes—only a small percentage could be traced to *Brucella* infection. There are many technical phases of such research, but, briefly, the speaker had the honor of making a report of these research findings and field tests at the annual meeting of the United States Live Stock Sanitary Association a few months ago. This body unanimously accepted our recommendation that calfhood vaccination, under proper supervision, be officially recognized as an adjunct to the test-and-slaughter plan of combating brucellosis. Dr. A. E. Wight, known to many of you as the official in charge of the combined tuberculosis and brucellosis field campaigns, shares with me the belief that this vaccine will be of great value in the problem herds. It will also be a powerful supplement to the test-and-slaughter plan and sanitary procedures in herd management.

Necessarily at this stage of the work I can make no more than the foregoing progress report. It is largely an account of preparation for the ultimate conquest over brucellosis in animals, thereby adding to the safety of man. Although it will be a long campaign, I am confident of ultimate success. I am confident for the reason that success has attended our other field activities against dangerous disease enemies, that we have attacked by using the same general strategy. These enemies include contagious pleuropneumonia, foot-and-mouth disease, dourine, southern cattle fever, glanders, scabies, bovine tubercu-

losis, various injurious parasites, stock-poisoning plants and other lesser threats to the health of animals. Concurrently we are endeavoring to develop a similar vaccine against swine brucellosis, but no report on this work can be made at this time.

LEGAL AIDS IN DISEASE CONTROL

In closing, I feel it proper and fitting to acknowledge the substantial aid of the judiciary branch of our government in dealing with animal-disease problems. Our discussion has shown how legislation is the basis for work by executive units. The judiciary completes the alliance. Thus the three branches all contribute to the common purpose. The courts have consistently sustained our livestock laws, although in justice to our citizens I hasten to add that challenges to laws of this kind have come from only a very small minority.

It is noteworthy that research workers, in dealing with natural laws, rely also on an important element of judicial procedure. I refer to the practice of cross examination. This means of testing evidence is of paramount value in scientific work.

Cross examination is effective in removing bias, in disclosing fallacies, in separating fact from opinion. Thorough cross examination of scientific reports and data forms the basis for sound judgment and valid conclusions. In his anxiety to furnish relief from the ravages of a disease, even the most conscientious scientist at times may fall victim to the common human error of believing what he wishes to believe, of painting his findings with a rosier tint than the cold light of factual, logical reasoning warrants.

On guard against this human frailty, we have cross examined our evidence with meticulous care to be certain that every unit in the complex research structure is sound. To have done less would not have been fair to our citizens, who look to their government for help and guidance.

As you have seen, this is but a simple account of sustained effort marked by patience, thoroughness and perseverance more than by genius. It is the composite product of many hands and minds—yes,

and of the main lifetime efforts of several workers; I am primarily the narrator. To me this occasion is significant as illustrating the soundness and strength of our form of government. It demonstrates how in scientific as well as in other fields our democracy, with its three branches—legislative, executive, and judicial—functions in serving the people.

Blaming "Other States"

From the *Boise (Idaho) Statesman* we clip: "The Lewiston cholera is due to swine imported from out of the state and sold through Lewiston salesyards."

This is not quoted as a sensational event, but as a pattern of what can be gathered all over the country. It shows that the achievements of the veterinary service in the control of animal diseases are not taken seriously by the people. In fact, unless means are found to curtail the damage done to the livestock industry by community sales barns and free-for-all trucking of livestock all over the country the common knowledge of animal diseases that veterinary science has disclosed will become more and more useless.

As the clipping (*loc. supra*) indicates, local reporters always seize the opportunity of blaming "other states," when plagues break out in farm animals. Nothing much is ever said about disease "imported" from farms, ranches, townships, or counties within the state itself, which under the present system of livestock transportation are really the geographic boundaries that need policing. The truth seems to be that the more we become milling throngs of men and animals the more apparent becomes the need of a rigidly managed veterinary service in every nook and corner of the country. Watching bridges and roads which happen to separate one state from another (and not even this is done) will never solve the whole problem. Disease spreads intrastate also.

Truly, the practice of veterinary medicine is taking on the aspect of a public service to be financed by the public to an extent sufficient to protect public interest.

Field Tests with Phenothiazine as an Anthelmintic in Cattle*

DALE A. PORTER, Sc.D., BENNETT T. SIMMS, D.V.M., and GEORGE E. CAUTHEN, M.S.
Auburn, Ala.

THE VALUE OF phenothiazine as an anthelmintic in various domestic animals has been the subject of investigation in several laboratories. Following the original discoveries of its potentialities,^{1,2} critical tests with unconditioned phenothiazine in cattle, carried out by Swanson, Porter and Connelly,³ indicated its anthelmintic value against some of the gastrointestinal nematodes of these host animals. Soon after the completion of that work, the present writers began tests to determine the anthelmintic efficacy of the drug in cattle under field conditions. It is the purpose of this paper to report the results of these tests, including observations on the comparative efficacy of phenothiazine and copper sulfate-nicotine sulfate mixture.

METHODS

The phenothiazine used in the tests was the unconditioned product (without a wetting agent) obtained in bulk from commercial sources. For the most part the dose for each animal was weighed out and given in 1-oz. or in 1½-oz. hard gelatin capsules, although in some instances, noted later, the drug was incorporated in a grain mixture placed before the individual animal. The cunic mixture consisted of 1.5 parts of copper sulfate and 0.6 parts of nicotine sulfate in 100 parts of water. This was measured out and used as a drench.

Parasite egg counts were made, according to the method described by Stoll,^{4,5} with fresh rec-

tal samples of feces taken from the hosts. The eggs of the nodular worm, *Oesophagostomum radiatum*, and of the large stomach worms, *Haemonchus contortus* and *H. similis*, were not differentiated from each other, but were counted as a group separately from those of the small trichostrongyles, (*Cooperia* sp., *Ostertagia* sp., and *Trichostrongylus* sp.). Eggs of the hookworm, *Bunostomum phlebotomum*, were recorded separately except on September 11, 1940 (experiment 2).

The volume of packed red blood cells, used as an index of anemia, was determined by the Wintrobe hematocrit method. The volume is expressed in cubic centimeters of red cells per 100 cc. of blood. At each examination 5 cc. of venous blood was taken in bottles containing a dry mixture of four parts potassium oxalate and six parts ammonium oxalate. This anticoagulant, at a concentration of 2 mg. per cubic centimeter of blood, produces no change in cell volume, according to Heller and Paul.⁶

RESULTS

Experiment 1.—The animals were 2-year-old, purebred Hereford bulls. In a herd of 13 bulls, several were in poor condition, but did not show any marked symptoms of parasitism. Fecal examinations, however, revealed all bulls to be parasitized in varying degrees with stomach worms, nodular worms and small trichostrongyles. The nine animals in the herd which were passing the largest number of eggs were in the poorest condition. These were selected for treatment at the request of the owner.

On February 27, 1940, phenothiazine was administered in hard gelatin capsules in amounts ranging from 120 to 240 Gm., or approximately 0.25 to 0.49 Gm. per pound of body weight (0.56 to 1.1 Gm. per kilo) to five bulls (table I). The drug also was given to one bull on this date and to three others on later dates by placing a medicated mixture before the hosts individually,

*Heller, V. G., and Paul, H.: Changes in cell volume produced by varying concentrations of different anticoagulants. *J. Lab. & Clin. Med.*, xix (1934), pp. 777-780.

*From the Regional Animal Disease Research Laboratory, Bureau of Animal Industry, U. S. Department of Agriculture.

¹Harwood, P. D., Jerstad, A. C., and Swanson, L. E.: The efficacy of phenothiazine for the removal of ascarids and nodular worms from swine. *J. Parasitol.*, xxiv (1938), suppl. pp. 16-17.

²Harwood, P. D., Habermann, R. T., and Jerstad, A. C.: Efficacy of commercial phenothiazine in the removal of roundworms from sheep. *Vet. Med.*, xxxiv (1939), pp. 440-443.

³Swanson, L. E., Porter, D. A., and Connelly, J. W.: Efficacy of nonconditioned phenothiazine in removing worms from the alimentary canal of cattle. *J.A.V.M.A.*, xcvi (1940), pp. 704-707.

⁴Stoll, N. R.: On methods of counting nematode ova in sheep dung. *Parasitol.*, xxii (1930), pp. 116-136.

⁵*Ibid.*: Observations on cattle nematode infections with a demonstration of their secondary transmission to grazing sheep. *J. Parasitol.*, xxii (1936), pp. 386-407.

at a ratio of 40 Gm. of the drug to approximately 1 lb. of commercial grain mixture. In these cases the dose rate was approximately 0.12 to 0.37 Gm. per pound of body weight (0.27 to 0.81 Gm. per kilo), or a total of from 100 to 200 Gm. per bull. In both methods the bulls were denied food for 24 hours preceding treatment. Following treatment they were turned out on clean pasture. The only ill effects resulting from the treatment were lack of appetite and sluggishness, noted the following day. The results of blood and fecal examinations are summarized in table I. It will be seen from an inspection of these data that there was a significant reduction in the number of parasite eggs two days after treatment and that the number of eggs per gram of feces was still small as long as 12 to 18 weeks later. Blood examinations made on some of the bulls two and six weeks after treatment showed increases in the volume of packed red blood cells over what it was before treatment.

Eggs identified as those of the hookworm, *B. phlebotomum*, were found in feces of bulls 111, 115, 123 and 125 before treatment, but were not seen in subsequent examinations.

In view of the fact that the bulls in poor condition were selected for treatment, the untreated bulls harboring few parasites were not comparable controls. It was noted that the six bulls treated on February 27, 1940, and four bulls not treated made average gains of 49 and 46 lb., respectively, in ten weeks following treatment. The change in mean weights in the two groups was from 516 to 565 lb. for the treated and from 650 to 696 lb. for the untreated bulls. Marked improvement was evident in the spring; in October, after good summer grazing, the treated bulls weighed from 900 to 1,000 lb. and were in uniformly good condition. The owner reported at that time that bull 119 had taken first place and two untreated bulls, second and third places, in the 2-year-old class at the Alabama state fair.

Experiment 2.—The animals used in this experiment were yearlings of mixed breed. They were part of a herd in which heavy

losses from gross parasitism had occurred for some time. Dr. M. S. Esslinger of Ozark, Ala., the veterinarian employed by the owner, reported that about 50 yearlings had died the preceding year from parasitism and that similar losses were again in prospect, in spite of treatment with the cunic mixture. The farm was first visited by the writers on August 22, 1940, about ten days after the yearlings had been treated with cunic mixture. The animals were very weak and emaciated and showed signs of scouring. Severe anemia was evidenced by paleness of the visible mucous membranes and the presence of submaxillary edema in several animals. Two of the latter cases showed egg counts of 2,200 and 2,800 nematode eggs (all species) per gram of feces and their volumes of packed red blood cells were 10.1 and 12.5 cc. per 100 cc., respectively.

On September 2, 1940, the yearlings showed no improvement. At this time five animals were treated with phenothiazine, three were left as untreated controls, and the remaining yearlings received cunic. Phenothiazine was given in capsules in doses ranging from 40 to 60 Gm. and the cunic was given as a drench of 3 to 5 fluid ounces, depending in each instance on the estimated weight of the subject. Their estimated weights were from 175 to 300 lb. All animals were taken off feed the night before, treated in the morning and held in dry lot the remainder of that day. They were then put in a small lot, containing very little grass, and fed chopped peanut vines.

Blood and fecal examinations were made by the writers on September 11 and 19, October 10 and November 19. The results are summarized in table II. On September 11, one week after treatment, the first examination for parasite eggs indicated that the treatment with phenothiazine had been more successful than that with cunic. This was further borne out by examination *post mortem* of two yearlings (not included in the table) from the group receiving cunic which were killed *in extremis*. Both showed submaxillary edema *ante mortem*. The packed red blood cells of the first were 14 cc. per 100 cc. of blood. The volume of

TABLE I—Results Obtained with Various Doses of Phenothiazine in Purebred Hereford Bulls

Host Animal		Examinations Before Treatment		Treatment		Examinations After Treatment											
						2 Days		2 Weeks		6 Weeks		8 Weeks		12 Weeks		18 Weeks	
						EPG†		EPG†		EPG†		EPG†		EPG†		EPG†	
No.	Weight (Lb.)	RBC*	1	2	Dose‡ (Gm.)	DATE (1940)	1	2	RBC	1	2	1	2	1	2	1	2
107	790		536	248	100 F	2-27				6	22						
109	540		60	126	200 F	3-13	0	2		0	0	20	24	4	34		
111	500		340	312	240 C	2-27	0	4	27.0	0	2						
113	700	26.5	176	40	136 F	4-24	0			28.2	0			0	28	0	28
115	460	18.5	242	76	228 C	2-27	0	0	21.5	0	0						
118	470	23.0	240	150	120 C	2-27	0	30	24.0	6	10	28	40	4	20		
119	615		374	100	170 F	3-16	72		23.0	0	8	2	10				
123	470	18.7	248	98	144 C	2-27	0	4	23.0	0	14	0	10			52	54
125	410	18.3	348	164	144 C	2-27	0	2	23.0	0	0	0	10	8	4		

*Volume of packed red blood cells (cubic centimeters per 100 cc. of blood).

†Eggs per gram of feces.

1. *Haemonchus* sp. and *Oesophagostomum* sp.

2. *Cooperia* sp., *Trichostrongylus* sp., and *Ostertagia* sp.

‡Drug given in feed (F), in capsules (C).

packed cells was not determined for the second animal.

The parasites found in the first yearling were as follows: stomach—10,500 *H. contortus* and *H. similis*, 900 *Ostertagia ostertagi*, 1,000 *Trichostrongylus axei*; small intestine—40,400 *Cooperia punctata*, 8,200 *C. pectinata*, 28 *B. phlebotomum*; large intestine—2,132 *Oes. radiatum*.

The second yearling harbored the following species: 97 *H. contortus* and *H. similis*, 2,400 *O. ostertagi*, 5,700 *T. axei*, 52,000 *C. punctata*, 400 *C. pectinata*, 12 *B. phlebotomum* and 6,526 *Oes. radiatum*. In both cases a large proportion of the stomach worms and nodular worms were immature.

At this time (September 11) the herd was put in a dry lot and fed corn stalks and ground peanut vines. Because of the anemic condition it was felt that some source of iron supplement should be made available. Accordingly, a commercial stock tonic was mixed with the chopped peanut vines and kept before the herd for about ten days beginning September 14. It was estimated that approximately 0.2 Gm. of ferrous sulfate and 0.02 Gm. of copper sulfate were eaten by each animal per day.

On September 19, further examinations indicated effective results in the cattle treated with phenothiazine as compared with the results in the untreated animals and those given cunic. Yearling 876, given phenothiazine, was, however, still passing large numbers of parasite eggs. This animal was not examined the previous week. For those on which blood examinations had been made on both September 11 and September 19 (table II), the mean change in packed cell volume was as follows: no treatment (two animals), reduced 1.1 cc. per 100 cc. of blood; cunic (four animals), reduced 1.8 cc.; phenothiazine (two animals), increased 2.3 cc.

Since the general appearance and clinical findings indicated that further losses would occur, the untreated animals and those given cunic were all given phenothiazine at a dose rate similar to that given to the group treated on September 2. Food was not withheld before treatment, and after the treated yearlings were held in

dry lot for a few days they were turned on a new field of corn stalks, velvet beans and cowpeas.

At the next examination, October 10, it was learned that animals 834, 894 and 895, treated with cunic on September 2 and with phenothiazine on September 19, and yearling 876 of the original phenothiazine-treated group (September 2) had died sometime after September 24. On September 19, these four animals were in the poorest condition of all in the herd, as evidenced by clinical submaxillary edema, low volume of packed red cells, and high nematode egg counts (table II). Since all of them lived more than five days following treatment with phenothiazine, it is believed that their deaths resulted from debility and inanition rather than from any toxic effect of the drug.

The remaining animals, however, showed considerable improvement in appearance, substantial gains in the percentage of packed blood cells and reduction in the number of parasite eggs. Eggs of the hookworm, *B. phlebotomum*, were still present in the feces of a majority of yearlings, but in considerably lower numbers (table II).

On November 19, the red blood cells of the yearlings were, with a few exceptions, approaching the normal level. Number 900, for some reason, showed little blood regeneration since treatment with phenothiazine ten weeks before. Eggs of the stomach worms (*Haemonchus* sp.) and nodular worms were again being passed in slightly larger numbers by the majority of the yearlings, whereas the number of eggs of the small trichostrongyles showed considerable decrease. Hookworm eggs were found in the feces of only three yearlings. It is possible that the improved condition of the animals was responsible for the gradual elimination of more worms since the examination made on October 10. Whether the increase in the number of stomach and nodular worm eggs was due to reinfection or maturation of immature stages missed by the treatment is not known. That phenothiazine may on occa-

sion fail to remove all immature stages of *H. contortus* was demonstrated previously.³

DISCUSSION

Although the results obtained in the type of anthelmintic experimentation reported in this paper are perhaps not as conclusive as those obtained by critical testing, the available results support the findings in critical tests.³ It may be seen from the data presented that treatment with phenothiazine was very effective against stomach worms (*Haemonchus* sp.) and nodular worms (*Oes. radiatum*). Because of the difficulty experienced in differentiating the eggs of *Cooperia* sp., *Ostertagia* sp. and *Trichostrongylus* sp., the effectiveness of the drug against these forms was not determined. However, the fact that critical tests³ showed the drug to be only slightly effective against the cooperids suggests that the immediate reduction in the number of eggs lumped as belonging to these species was perhaps due largely to the removal of *T. axei* and *O. ostertagi*.

As indicated by fecal examinations, all hookworms were removed by doses of 144 to 240 Gm. in bulls weighing 410 to 500 lb. (0.3 to 0.49 Gm. per pound of body weight) and were considerably reduced in number, but not entirely removed, by doses of 40 to 60 Gm. in yearlings weighing approximately 175 to 300 lb. (approximately 0.2 Gm. per pound of body weight).

The efficacy of phenothiazine in cattle, as judged by the reduction of the number of eggs in the feces, is supported also by recent reports by LaPage⁷ and Taylor and Sanderson.⁸ The former reported that doses of 80 to 125 Gm. were nontoxic in 6-month-old calves. Taylor and Sanderson, however, found that "cattle" were seriously upset and refused food for several days when given doses of 70 Gm. and as a result of feeding much larger doses, they suggest that "doses of something like two grammes per kilo may prove fatal to a 3 to 5 months old calf." The present work indicates that

⁷LaPage, G.: Experiments on the anthelmintic action of phenothiazine. *Vet. Rec.*, III (1940), pp. 648-657.

⁸Taylor, E. L., and Sanderson, K. M.: Phenothiazine—a remarkably efficient anthelmintic. *Vet. Rec.*, III (1940), pp. 635-647.

TABLE II—Results Obtained with Phenothiazine and Cunic in Heavily Parasitized Cattle
TREATMENT AND EXAMINATIONS

Host No.	9-2-40 TREATMENT	9-11-40			9-19-40			
		RBC*	EPG†		RBC	EPG†		
			1	2		1	2	3
830	None	21.7			16.0	800	200	400
831	None		400	1,200	21.7	400	1,200	200
833	None	18.3			16.0			
834	Cunic				11.0	2,000	2,600	+
835	Cunic	22.5	200	400	20.1	50	620	200
878	Cunic				22.0	200	600	200
894	Cunic	14.0	2,000	800	11.8	2,000	1,800	200
895	Cunic	14.8	800	2,600	14.2	1,000	2,400	+
899	Cunic	18.0	1,200	600	16.0			
876	Phenothiaz.				14.0	4,800	5,000	200
877	Phenothiaz.				28.5	0	400	+
892	Phenothiaz.	18.0	0	98				
896	Phenothiaz.	17.0	0	10	18.8	0	600	0
900	Phenothiaz.	17.0	0	216	19.8	0	1,200	+

TREATMENT AND EXAMINATIONS—Continued

Host No.	9-19-40 TREATMENT	10-10-40				11-19-40			
		RBC	EPG†			RBC	EPG†		
			1	2	3		1	2	3
830	Phenothiaz.	28.0	0	164	0	33.0	44	0	0
831	Phenothiaz.	26.5	0	230	2	28.4	18	2	0
833	Phenothiaz.	23.5	0	90	2	30.0	20	22	0
834	Phenothiaz.‡								
835	Phenothiaz.	25.5	0	500	4	31.0	4	34	2
878	Phenothiaz.	22.5	2	118	4	23.5	0	54	0
894	Phenothiaz.‡								
895	Phenothiaz.‡								
899	Phenothiaz.	20.0	0	390	4	25.4	66	72	6
876	None‡								
877	None	28.0	2	352	4	33.2	28	12	0
892	None	27.0	0	844	0	31.9	58	10	0
896	None	25.0	0	514	0	32.6	14	8	0
900	None	18.5	4	490	4	19.9	184	100	8

*Volume of packed red blood cells (cubic centimeters per 100 cc. of blood).

†Eggs per gram of feces:

1. *Haemonchus* sp. and *Oesophagostomum* sp.
2. *Cooperia* sp., *Trichostrongylus* sp., and *Ostertagia* sp.
3. *B. phlebotomum*.

‡Weak and emaciated, submaxillary edema present. Died sometime after September 24.

+ = Eggs present but not counted.

considerably smaller doses (0.27 to 1.1 Gm. per kilo) are quite effective and also comparatively nontoxic in cattle 1 to 2 years old.

Under the conditions of our experiments phenothiazine appears to be a more satisfactory treatment than the copper sulfate-nicotine sulfate mixture for the removal

of gastrointestinal nematodes of cattle. This finding is in agreement with the results of similar comparisons of efficacy against parasites in sheep.^{7, 9, 10}

*Gordon, H. McL., and Whitten, L. K.: A field trial comparing phenothiazine, tetrachlorethylene emulsion, and copper sulphate and nicotine sulphate mixture for the treatment of tricho-

Although from the limited number of comparisons reported in this paper phenothiazine seemed equally effective when given in capsules or in grain mixtures, the capsule method was more convenient to use. If there is a satisfactory chute for handling cattle, capsules can be administered rapidly. In giving phenothiazine mixed with grain it is necessary to feed each animal separately in order to insure correct dosage. Few farms are equipped to do this. Furthermore, cattle on range are unaccustomed to grain and often refuse it unless it has been accessible to them for several days.

Results of tests reported here as well as unpublished experiments by one of the writers (D.A.P.) indicate that 0.2 Gm. of phenothiazine per pound of body weight (0.44 Gm. per kilo) is more than ample dosage for the removal of stomach worms and nodular worms. Probably the practical procedure in treating parasitized cattle is to administer this drug in 1½-oz. capsules which hold about 20 Gm. of the drug. It is believed that satisfactory results can be obtained by giving not more than one capsule for each 100 lb. of body weight. This will usually mean not more than two or three capsules to heavily parasitized calves 8 to 12 months old. While larger doses may remove a higher percentage of the cooperids and hookworms immediately, such doses would be more expensive and troublesome to give and also might approach the toxic level, particularly in calves weakened by parasitism, malnutrition or other causes. It should be borne in mind that animals which are very weak and anemic are sometimes apparently affected adversely by almost any type of medication and it might be advisable in such cases to give half a dose and repeat the treatment after a week or ten days. It also appears logical that physical improvement following treatment may result in gradual elimination of parasites not immediately affected by the drug.

The fact that the number of parasite

eggs was still at a low level 12 to 18 weeks after treatment in the first experiment and 8 to 10 weeks in the second experiment indicates that serious reinfection may not take place for some time, if cattle are moved to clean ground following treatment with phenothiazine.

SUMMARY

1) Two field experiments, one involving administration of unconditioned phenothiazine by capsule and mixed with grain ration to a group of moderately parasitized bulls and the other involving administration of cunic and unconditioned phenothiazine separately to groups of heavily parasitized yearlings, are described.

2) The effectiveness of the drug was judged by the reduction in the number of worm eggs per gram of feces.

3) Unconditioned phenothiazine in doses of 0.12 to 0.49 Gm. per pound of body weight (0.27 to 1.1 Gm. per kilo) was equally effective in the removal of gastrointestinal nematodes from 2-year-old bulls.

4) The drug was equally effective when given in capsules or in grain mixtures, but the capsule method was more convenient to use.

5) Doses of 40 to 60 Gm. given to heavily parasitized yearlings weighing about 175 to 300 lb. (approximately 0.2 Gm. per pound of body weight, or 0.44 Gm. per kilo) were, except in one animal, very effective against gastrointestinal nematodes.

6) Doses of 3 to 5 oz. of a 1.5 per cent copper sulfate and 0.6 per cent nicotine sulfate solution were ineffective as an anthelmintic when compared with results obtained with phenothiazine given at a dose rate of about 0.2 Gm. per pound of body weight.

7) Marked physical improvement of the phenothiazine-treated animals was evident from the increase in the volume of packed red blood cells following loss of parasites.

8) The data indicated that although the cooperids may not be removed immediately by phenothiazine, general physical improvement of the host following loss of other harmful parasites may result in gradual elimination of these parasites.

strongylosis. J. Counc. Sci. & Ind. Res., Australia, xiii (1940), pp. 81-86.

¹⁰McEwen, A. D.: Comparative tests on the treatment of lambs with phenothiazine and with copper sulphate and nicotine sulphate. Vet. Rec., lli (1940), pp. 657-658.

9) It is indicated also that serious reinfection of cattle 1 to 2 years old may not take place for at least three to four months if moved to clean ground following treatment.

ADDENDUM

Since this manuscript was prepared additional observations of the second herd have been made. These animals were pastured on cultivated fields during the fall and winter, and improved considerably in physical condition. About April 1, 1941, they were returned to the pasture on which they had been grazing when losses occurred during the preceding summer and fall. When examined on this pasture June 24 and August 23, 1941, the previously parasitized cattle were in good physical condition and were voiding as few parasite eggs as on November 19, 1940 (table II). Young animals, not previously treated, were voiding eggs in moderate numbers (100-300 of group 1 (see table II) and 300-1,100 of group 2).

Laboratory and Field Tests of Anthelmintics

That doctors are still needed to protect the ailing being from the peril of the apothecary is being proved in reports on the use of phenothiazine without professional guidance. It's another case, of which there have been many, where attempts to replace biology with arithmetic aren't working.

When Maurice C. Hall and his associates in the Zoölogical Division of the U. S. Bureau of Animal Industry established a set of concrete rules for testing the virtue of anthelmintics *in vivo*, they did not contend that their percentage figures applied, without reservation, for the field of practice. On the contrary, Hall, in particular, emphasized the wisdom of "counting" the injury (tissular, organic, hematic, systemic) that worm-ridden animals had already suffered when the drug was given, as well as the number of worms the drug expelled or left behind. For example, if a drug removed 90 per cent of a worm burden, it did not follow that the ill health of the stricken host would be removed in

the same mathematical order. It was not claimed that removing even 100 per cent of the blood-sucking worms carpeted over the abomasum of a moribund sheep would cure the dying victim of gastric strongylosis. There is irreparable damage beyond the infected stomach that the worm-killing drug does not correct. In fact, the vermicides or vermifuges, being killers in fact, are apt to inflict additional injury to the patient. The discovery of such drugs as phenothiazine does not discount the Pasteurian philosophy about the relative viability of host and parasite in the presence of a chemical agent, nor does it decrease the importance of diagnosis in the practice of medicine.

Lambs stunted to 50 lb. when they should be weighing twice that much and reduced to the level of moribund downers do not recover the bloom of good health by having some worm remedy mixed in their feed. The failure to cure is less astonishing to the experienced veterinarian than to the unfortunate owner who was misled by unwisely publicized mathematics of the research laboratory. Where arithmetic replaces biology, chemotherapy is not safe in any hands. Doctors are still needed, phenothiazine and sulfanilamide notwithstanding.

New Speed Shot

Working on a hormone of the estrogenic group, Walter Kearns, Milwaukee urologist, allegedly discovered that testosterone combined with propionic acid (by a secret process) will restore the old, broken down race horse to the prowess of its youth. Hollyway, 17 years old of Grand Circuit fame, after receiving a shot, came right back almost to his former speed of 2:01 and won two heats in a race at Taylorville, Ill., in August. The product, called oreton in the press report, is made from the cholesterol of beef spinal cords. It may superimpose a new problem on the testers of doped horses.

Support your government by buying Defense Savings Bonds and Stamps.

Cobalt Deficiency in Some Michigan Cattle*

B. J. KILLHAM, D.V.M.

East Lansing, Mich.

FOR MANY YEARS, probably since agricultural pursuits have been attempted in the areas affected, a disease of cattle, designated by several titles but chiefly as Grand Traverse disease, has been noted in several regions in Michigan. The condition has been most common on the light, sandy soils adjacent to the lakes, but occasionally it has been reported on farms containing heavier soils.

A special bulletin published by the Michigan Agricultural Experiment Station under date of July 1909 and referring to work conducted several years previously, describes the symptoms of the disease as follows:

They consist of general emaciation so extreme as to indicate that all of the superficial fat of the body had been used, leaving the skin apparently attached to the bones. . . . The coat stares and the appetite falls off. The animals drink less and less as the disease advances until finally they refuse to drink altogether. As the appetite fails it becomes depraved. The cattle eat such materials as wood, leather, rope or bark from stumps. The chewing of bones is quite common.

This description closely resembles reports received from cattle owners from time to time over a period of years and, in general, coincides with many observations.

These earlier investigators surmised that the disease was related to the feed and demonstrated that importing feed or moving affected cattle to other sources of feed usually resulted in cures.

Later, carefully conducted research in Michigan and other states appeared to indicate that a phosphorus deficiency was responsible for depraved appetite which was accompanied by swollen and stiff joints, harsh coats, general unthrifty condition, emaciation and other symptoms.

Huffman and Taylor described depraved appetite in dairy cattle and stated:

This abnormal craving is caused by some deficiency in the ration. The primary cause of

depraved appetite has been attributed by a number of authorities to a lack of sufficient minerals in the ration, particularly a deficiency of phosphorus. Our observations tend to substantiate this theory. . . . The feeding of different mineral supplements in addition to restricted rations is not definitely a cure for depraved appetite in all cases. For example, syrup of iron phosphate relieved the depraved appetite in some instances, but when fed to other animals suffering from the same disturbance failed to relieve the condition. Well cured alfalfa hay, added as a supplement to the restricted ration, has effected a cure in all cases tried. This indicates that some factor in alfalfa hay prevents and cures depraved appetite as it occurs under experimental conditions. However, a mineral mixture similar to the mineral combination found in alfalfa hay failed to relieve the depraved appetite. These results, however, cannot be compared to conditions found under ordinary farm conditions where a phosphorus deficiency is the usual cause of depraved appetite.

Symptoms similar to those enumerated were described in a Wisconsin bulletin published in March 1927 and entitled "Phosphorus Deficiency and a Dairy Cattle Disease." The authors of that publication stated:

The mysterious disease called Pica by veterinarians, which occurs among some of the dairy herds of northeastern Wisconsin, is in all probability due to low phosphorus roughages and to grazing on pastures low in phosphorus.

Six animals were secured from various afflicted herds and taken to an experiment station for feeding. When these animals were furnished rations that were abundant in phosphorus, they all showed a remarkable improvement in a short time. Similar results were obtained with affected Michigan cattle which were moved to the college station and fed regular rations without any mineral supplements. Apparently, consideration must be given to factors relating to the home farms of the afflicted cattle.

Bulletins from Minnesota, Montana and Pennsylvania and articles in many domestic and foreign journals added to the impression that if cattle owners would add

*From the Veterinary Division, Michigan State College.

phosphorus to the ration, usually in the form of bone meal, deficiency troubles would be eliminated. In many instances this conclusion seemed to be correct. But for several years evidence indicated that the problem was more complex, particularly in the northern part of the lower peninsula of Michigan. The situation was greatly emphasized during the past winter, possibly because of the growing conditions that obtained during the preceding summer and fall. Numerous instances were cited and observed where cattle became unthrifty, developed morbid appetites, became extremely emaciated and finally practically refused to eat. Cows dropped calves in an apparently normal manner, but the calves dwindled and died in two to six weeks. After calving, the cows sank rapidly. All of these things occurred despite good feed and good feeding methods. There were good grain mixtures and alfalfa hay that was excellent in appearance. The feed was supplemented with salt and bone meal and in some cases molasses was added as a safeguard against ketosis. The biochemic data covering blood and urine examinations definitely eliminated phosphorus deficiency and ketosis. Not all cattle in all herds were affected, but on most of the farms investigated a majority of the cattle were stricken regardless of age or sex.

The possibility of a deficiency of some of the so-called trace elements has been discussed at intervals, but until attention was forcibly called to the probability of a solution in this connection, the problem was allowed to drift with the thought that the trouble had been aggravated by unusual growing conditions and that relief would come when the cattle were turned out to pasture in the spring.

There are at least thirteen mineral elements known to be essential to animal life: Ca, Cl, Co, Cu, Fe, I, K, Mg, Mn, Na, P, S and Zn. Of these, Cu, Mn, I, Zn and Co have been called trace elements. Underwood in his discussion of "The Significance of Trace Elements in Nutrition" is quoted as follows:

The parts played by these so-called trace elements in physiological processes is mostly ob-

scure but from the extremely small quantities required they can hardly be other than catalytic. At one time it was widely supposed that they would be found to be necessary for the proper performance of the internal glands but, with the exception of I, this supposition has not been justified and evidence is accumulating to indicate that they are indispensable constituents of some intracellular enzyme systems.

Copper has been used in recent years in conjunction with iron in pig anemia, and it evidently is involved in various other ailments. It is probable that the rôle of copper is secondary in hemoglobin formation.

Manganese has been studied, but its exact place in the nutritional picture is not clear. Apparently, manganese favors anemia in animals. Its action in connection with poultry ailments has been studied at Michigan State College.

Certain areas in Michigan, we know, are frequently deficient in iodine and because of the deficiency, goiters occur in some farm animals and hairless pigs are born. The remedy here is simply the administration of iodine during the gestation period.

Zinc deficiencies in farm animals under normal conditions have not yet been signalized, although these deficiencies in plants are well known.

This brings us to the remaining trace element, cobalt. This mineral has been discussed, but it was not thought that it would be deficient in Michigan because iron is abundant in the state and is often contaminated by cobalt. It is not clear just how cobalt first came to be used in cattle showing evidence of deficiency trouble. One story is that a Chicago pediatrician who has a home in Leelanau county suggested its use to a progressive young farmer-neighbor, and another version has it that the hint came from remarks by some speakers over WKAR. But regardless of the origin of the treatment, reports were soon received that appeared to be entirely too good to be true, and investigations were made and demonstrations started to determine some of the possibilities and facts.

Reports of cobalt deficiencies in animals and their treatment with that element are numerous in New Zealand and Australia,

but in this country cobalt animal-deficiency reports have been largely confined to Florida. In Australia and New Zealand the disease attributed to cobalt deficiency has been called "wasting disease" and "Bush-Sickness" and it has been designated by other titles. A cattle disease in Florida known as "salt sick" was reported to be corrected by the addition of iron and copper to the salt, but later investigations appeared to indicate that the benefit credited to the iron was probably due to the contaminating cobalt.

Visits have been made to farms in Manistee, Leelanau, Antrim, Presque Isle, Alpena and Alcona counties for the purpose of observing sick animals and obtaining blood and hay specimens for laboratory examination. Later, after cobalt was furnished and administered according to directions, trips were made to check results and to obtain additional blood samples for study. C. F. Huffman of the dairy department, C. W. Duncan, agricultural chemist, and A. C. Baltzer, dairy extension specialist, participated in the investigations and demonstrations and it is the intention of the group to view the feed-deficiency situation more critically next winter with the hope of solving some of the questions not yet answered.

Thus far we do not know why cobalt affects the appetite of cattle afflicted with pica, or whatever other term may be applied. We do not know how long or in what doses cobalt should be administered for best results. We do not know why the hemoglobin drops after the administration of cobalt, although it is supposed to stimulate hemoglobin production. We do not know why other favorable developments follow the use of cobalt, but we do know this: The administration of cobalt in conservative doses to the cattle under our observation resulted in spectacular restorations of appetite in three to ten days. With the return of appetite came marked improvement in condition and in milk production and in the lactating cows. These developments occurred in cattle which had been afflicted for several months and were in most instances refusing or just nibbling

at good feed. Unfortunately, the work was not started soon enough to prevent interference by the pasture season, but a chance was had to work with most of the herds before the cattle had access to grass. In some instances the herd was divided and part of the animals were used as controls, but usually this did not work because the cattle owner soon observed the results in the treated group and saw no reason for depriving the other cattle of the benefits of the treatment.

Preliminary blood analyses revealed no evidence of ketosis or phosphorus deficiency, but anemia was marked. The Tallquist hemoglobinometer, which was first used in the field, showed from 40 to 80 per cent hemoglobin in the affected cattle. The higher indications usually related to animals which were in better condition than many of those affected. Later, careful laboratory examinations revealed the following with reference to hemoglobin:

Group	Grams per 100 cc.
Severely emaciated	6 to 8
Mildly affected	8 to 10
College herd (average)	13

It was noted that after the administration of cobalt there was a decrease of from 10 to 20 per cent in the hemoglobin which was followed shortly by a gradual climb toward normal. Theorizing regarding the temporary drop in hemoglobin, it has been suggested that probably the hemoglobin had not dropped, but had actually increased in amount, the percentage of shrinkage being due to the increase in the volume of the blood which followed the great increase in the intake of feed and water. Later, the hemoglobin increase gained on the blood volume and a rise in percentage was shown.

That cobalt was involved in the trouble seems to be further emphasized by the results of chemical examinations of hay samples obtained from farms where cattle were affected and hay samples collected in the vicinity of East Lansing.

COBALT IN HAY SAMPLES
(Preliminary Report)

Source	Parts per Million
Affected areas	0.03 to 0.06
College vicinity	0.12

Although workers in Australia and New

Zealand have corrected cobalt deficiency trouble, chiefly in sheep, through the administration of one to two milligrams of cobaltous chloride per day, it was deemed advisable to give larger doses and the following arbitrary dosage table was tried:

	COBALT DOSAGE	
	Amount Given Daily	
	Gr.	Mg.
Cobaltous chloride (1 oz. in 1 gal. of water) (tablespoonful daily)	2	130
Cobalt sulfate (1 oz. in 100 lb. salt)	$\frac{1}{3}$ - $\frac{2}{3}$	22-45

One coöperator stated that he obtained very good results using one tenth of an ounce (less than a dram) of cobalt sulfate in 100 lb. of salt.

Summarizing, clinical evidence indicates that Grand Traverse or Lake Shore disease in Michigan is essentially a condition due to cobalt deficiency. Biochemic investigations have demonstrated a low concentration of hemoglobin in the blood and no evidence of ketosis or phosphorus deficiency. After the administration of cobalt, hemoglobin regeneration occurred slowly, but the treated animals exhibited a spectacular return of appetite and a progressive improvement in condition and production. Preliminary chemical investigations of corn and hay grown on farms where there were affected cattle have shown the cobalt content to be much lower than for hay grown on farms in unaffected areas.

Theobald Smith Award

The firm of Eli Lilly & Company has established the Theobald Smith award in medical sciences amounting to \$1,000 and a bronze medal with \$150 added to defray the traveling expenses of the winner. The award is annual and is administered by the American Association for the Advancement of Science, through the secretary of section N of that society. The award represents "demonstrated research in the field of the medical sciences, taking into consideration independence of thought and originality." The recipient must be less than 35 years old and an American citizen.

The candidates are proposed by fellows of the AAAS and the winner is chosen by

a committee composed of the president and four fellows, from nominations made before May 1 each year. In view of the fact that Theobald Smith stepped into prominence from the rung of veterinary science when he launched the hunt for insect vectors, typed the bacillus of Koch and pointed out facts that animal diseases force upon the workers in the field of medical research, he created everlasting interest in a branch of science (veterinary) where external reality helps to train the researcher's mind. Perhaps the very objectiveness of veterinary medical research has created worthy candidates for this annual award, given to commemorate the name of one who won his chevrons in our field.

The Holstein-Friesian Association of America

At the fifty-sixth annual meeting of the Holstein-Friesian Association of America, held at Lansing, Mich., June 4, the secretary reported that more than 3 million cattle of the breed had been registered during the past 56 years. The number now on the register is 143,423, many of which hold A.R. (= advance registry) certificates. The number of A.R. cows registered last year was 2,371. Of these, 723 averaged 486.7 lb. of butterfat in ten months and 1,648 averaged 587.5 lb. in twelve months. During the year 23 cows exceeded 1,000 lb. of butterfat. The Herd Improvement Registry was notable. A total of 10,371 cows and heifers of all ages in this class yielded an average of 405.2 lb. in the prescribed twelve-month period.

Chief O. E. Reed of the federal bureau of dairying warned against going headlong into a period of surplus dairy products after the present emergency ends.

Rules for artificial insemination were adopted: to govern insemination (1) within the owner's herd, (2) within the herds of regularly organized societies and (3) within herds not in these two classes.

The membership of the Association is given as 32,005, an increase of 61 per cent for the year owing to concessions made to members of local organizations.

"Veterinary Jurisprudence"

W. H. SHANNON, V.M.D.

Boston, Mass.

THERE IS no subdivision of the law entitled "veterinary jurisprudence." Laws governing veterinary practice come under three general classifications: (1) constitutional law, (2) common law, and (3) statutory law. The first comes from the federal and state constitutions; the second from universal consent and immemorial usage unless abrogated or modified by statutes; and the third are the laws created by statutes, such as the Harrison Narcotic Act, laws against docking tails and cutting ears, licensure laws.

One desiring to practice veterinary medicine first meets the law arising from statutes, namely, the obtaining of a license to practice in the state of his choice. Under these statutes the preliminary requirements are usually clearly outlined; as to the professional requirements the board of registration has more or less discretionary power. Therefore, since the powers conferred on these boards are discretionary they can not be delegated to others in the absence of distinct provisions of statute. The legality of reciprocal licenses is open to grave question. In other words, a board of examiners in one state can not lawfully appoint the board in another state as its deputy to make examination. The license gives only such rights and privileges as its wording shows.

DON'T LOSE YOUR LICENSE

Whenever the existence of a license is lawfully questioned, it is not sufficient to prove its possession by parol evidence, nor is it sufficient to produce a certificate that one is licensed. (19 Pick 396.) The license may be a forgery, or it may have been cancelled or the certificate may be wholly false. By the general rules of evidence, the document itself should be produced.

PRACTICE IS PROPERTY

The right to practice is a property right but it is a right which is held subject to

the doctrine that a person may so enjoy the use of his own property that it shall work no injury to another. The courts recognize the fact that the right to practice is a valuable property right. However, the granting of a license does not operate as a surrender of police power on the part of the state. Therefore, a license once granted may be cancelled but since the license is in effect a contract with the holder, terms under which it may be revoked should be clearly defined in the statutes.

Veterinarians can not form a company or corporation to carry on the practice of veterinary medicine as the license to practice is issued to individuals, not to any company or corporation. Partnerships, however, are permissible.

PROSECUTIONS

Prosecutions for violation of practice laws are customarily made by or in the name of the state licensing board, but from the nature of the case the complaints must come from those who are cognizant of the facts and prosecutions may be started by any citizen. The proper method is for the person having the needed information to send the facts to the state board having supervision of the matter.

RESPONSIBILITIES

In assuming the practice of veterinary medicine one must remember that he takes upon himself certain duties or liabilities. When the veterinarian answers a call and goes to see a sick animal he enters into a contract with the owner. On his part the veterinarian warrants:

1. That he is legally qualified to practice his profession.
2. That his educational training and experience enable him to treat the case in accord with the known facts of the science.
3. That he will continue in his care of the case and render such service as may be needed until the case shall be terminated either by death or recovery of the animal, or by the

proper severing of the contract between the veterinarian and the owner.

4. That he will use approved methods of practice.

5. That he will use due care and diligence.

Unless specially provided the veterinarian will not be deemed to have guaranteed a cure. The owner or his agent agrees:

1. That he will follow all reasonable directions of the veterinarian, and render such assistance as may be possible.

2. That he will pay the veterinarian such reasonable fee as would be approved considering the services rendered and the customs of the community.

Unless he holds an official position, or his call to render professional service depends upon some previous contract or agreement, the veterinarian is under no obligation to respond to a call, but when he takes charge of a case his employment continues while the sickness lasts and the contract exists unless terminated by the assent of the parties or is revoked by his express dismissal. If the veterinarian wishes to withdraw from the case he should give reasonable notice to the owner so that another veterinarian may be obtained.

GRATUITOUS SERVICE

The fact that a veterinarian has given one call free does not, in the absence of clear evidence to the contrary, presume to be the assumption of a contract in which he agrees to continue to give his service without compensation. But because he is giving his services free does not entitle him to experiment at the expense of a poor person. If he is guilty of gross negligence or a marked departure from ordinary practice he may be held liable for harm resulting.

ORDINARY LIABILITY

A veterinarian in the absence of a special contract engages to use such reasonable skill, diligence, and attention as may be ordinarily expected of persons in that profession. He does not undertake to use the highest degree of skill nor an extraordinary amount of diligence. He must follow usual methods. He is not held liable for failure unless it is due to default in duty. The standard of skill must be judged according to the locality and time.

It is a general rule that a veterinarian is not liable for a simple error of judgment. A greater degree of skill is demanded from the veterinarian who holds himself out as a specialist in a given field while working in that field. A veterinarian called to treat a punctured wound in a locality in which tetanus was prevalent who did not give or recommend that tetanus antitoxin be used would be deemed to be guilty of negligence.

A duty rests on the veterinarian using biologic products to use care in the selection of the same. Carelessness in the choice of these may be deemed negligence.

A veterinarian is not responsible for the acts of the owner or the owner's agent in dressing the wound of an animal he has operated upon unless he is negligent in giving permission to dress the wound. In a private hospital the person dressing the wound or rendering nursing service would be the veterinarian's agent or servant and the veterinarian would be liable for the former's acts. Even though the one dressing the wound is the agent of the owner the veterinarian may properly be held for negligence if he fails to give proper instructions.

In a partnership a partner can not be charged with the acts of his partner if the latter goes outside of his legitimate scope or limit of the partnership by performing a wanton or wilful act which the reasonable partner would not countenance or ratify. In a partnership the members of the firm will be jointly liable for the acts of omission and commission of the others within the terms of the partnership.

A veterinarian is liable for the acts of another veterinarian sent by him to attend a case for him or under his direction where the services of the second veterinarian are rendered as the outcome of relationship between the two veterinarians and not between the second veterinarian and the owner.

It is the duty of a veterinarian after an operation to give such additional care as the case may require to insure good results. An operation is not finished until the patient has recovered from its performance so that no further results may occur. A

payment of his fee at the time of the operation would not be considered as a release from liability unless such release were clearly indicated.

A veterinarian is liable if in treating an animal the owner or the owner's servant while assisting the veterinarian is injured or contracts a disease if the veterinarian assures him there is no danger and he relies on that professional advice. If the assistant has been warned of the danger he is held guilty of contributory negligence and the veterinarian would be freed from liability.

A veterinarian is liable if through negligence an infectious disease is conveyed to another patient.

DESTROYING ANIMALS

As the result of an accident a veterinarian is often called to destroy an injured animal. He should be very careful to ascertain who is giving the order to destroy the animal. If the owner gives the order the veterinarian is safe, but if it is the agent of the owner, or agent of the other party in the accident, or a police officer, the veterinarian should ascertain that said person has authority and is acting within the scope of his authority. The common law of humanity might justify putting the animal out of its misery, but if the veterinarian is sued and at trial it is shown that the killing was unnecessary the veterinarian might be held liable for the destruction of the animal. The veterinarian may know that the killing is justified but he must be prepared to give proof of the fact which will convince the court in the face of conflicting testimony.

RESPECT THE CRUELTY LAWS

No man has a right to break the laws under which he is living; therefore, where a local law gives a body or an officer the authority to prevent cruelty to animals and a man has been legally ordered not to work a horse, a veterinarian who advises the owner that the horse may be worked may thereby incur the penalty. That is a question of opinion with the veterinarian but he has not the legal authority to decide the question of fact.

VETERINARIAN AS BAILEE

Bailment arises when the personal property of one person is left temporarily in the charge of another. The person who leaves the property is the bailor, the person taking charge of the property is the bailee.

A veterinarian is a bailee when he assumes the care of a sick animal in a hospital.

Bailment is a contract, the terms of which may be expressed or implied, but there is always one definite term, namely, the bailee agrees to return the property bailed upon the proper demand of the bailor. The bailor may or may not be the owner. It is the duty of the bailee to return the property to the bailor. If the bailment is gratuitous the bailee is liable only for gross carelessness or negligence.

If the bailment is for hire the bailee is liable for ordinary negligence. Ordinary care means that amount of diligence which the ordinary man under ordinary circumstances would exercise with regard to his own property.

The bailor must exercise good faith towards the bailee by giving him notice of all the faults of the animal bailed, within his knowledge, that might result in exposing the bailee to danger, and if he fails to do so and by reason of it the bailee is injured the bailor will be liable. For example, if a veterinarian is called to see an animal that is known to the owner to be vicious it is the owner's duty to so inform the veterinarian.

When the bailee is being paid for the care of animals in the absence of a supplementary agreement, it is understood that he is expected to give them ordinary care and that he will not use them. Should he make use of them he may be held liable for damages. This, of course, would not apply to a milk cow as proper care would require milking. A horse would need exercise.

LIENS AND SALES OF PATIENTS

A bailee can give no lawful title. When animals are left at a hospital a receipt in duplicate should be made out for the animals and signed by both parties, with the

terms agreed upon or the fixed charge, with the written understanding that a lien exists upon the animal until the bill is paid.

Possession is essential to a lien. A lien once released can not be renewed. An animal can not be held for a bill against another animal. A lien may be created by common law, by statute or by contract.

As a general rule it may be stated that a veterinarian has a lien on animals treated so long as they are in his possession. (Maine.) This rule is not absolute and is open to question.

The lien itself does not give the right to sell. To preserve the lien the veterinarian must continue to expend money in the keep of animals held. Sale is usually taken care of by statute.

The general rule seems to be that on mortgaged property the lien has priority over the mortgage before foreclosure and after foreclosure the lien would be supreme against the mortgagee as the new owner.

Liens once lost can not be revived. The writing of notice simply to come and get the animal held would break the lien but a notice to come and get the animal and pay the bill would not break the lien.

FEEES FOR SERVICES

A veterinarian has right to sue for his compensation. An unregistered or non-licensed veterinarian can not recover for services rendered. A promise to pay one practicing illegally is void. The contract is void in its inception. By common law a veterinarian who is guilty of negligence and malpractice can not recover for his services. Malpractice may be the result of negligence that is either wilful or ignorant.

If the veterinarian is called by the owner or his agent the owner is liable, but if called by a third party the owner would not be liable. When called by a third party a special contract should be made with the third party. But if called by a third party and the owner accepts his services, either by permitting him to continue or by following his directions, or by getting a prescription filled, it will be considered that the owner thereby assumes the liability for the payment.

Bills or requests for payment should not

be sent on postal cards. The bill should be in a sealed envelope. Even in a sealed envelope there should be nothing which could be interpreted as a threat or an abuse. Violations of these points are an offense against the postal law.

The Veterinary Meat Inspector in Public Health*

In a paper presented before the Public Health Inspection Service Section of the Ontario Health Officers Association (June 1940), A. J. Slack, dean of the public health faculty, University of Western Ontario, gave a clear analysis of the importance of ante- and postmortem inspection of meat by men thoroughly trained in that art. Since there are 40 or more diseases for which carcasses or parts should be condemned, it is readily understood, the Doctor said, that a little knowledge may prove misleading and that "the veterinarian only has the fundamental training essential to the satisfactory conduct of the important duty of meat inspection." The speaker emphasized that the competent meat inspector is familiar with the gross anatomy of the food animals and knows the location and appearance of lesions of disease which make meat unfit for food and can spot macroscopically in dressed meat the absence of tissues removed to cover up evidence of unwholesomeness.

In regard to milk, the author stated that the public is entitled to clean, fresh and safe milk, the primary requisite of which is healthy cows. Pasteurization is not sufficient. Inspectors must be capable of detecting tuberculosis, mastitis, etc., and of supervising production and handling to insure safe milk. The veterinarian should be the trouble man to visit dairy and processing plants when difficulties arise.

All worthwhile nations have their men of science and their scientific literature and are proud of both, but how these are maintained doesn't bother the politicians until war comes along.

*Slack, A. J. The value of food inspection and properly trained food inspectors. Canadian Public Health Journal, xxxii (July 1941), pp. 357-361.

SURGERY & OBSTETRICS

AND PROBLEMS OF BREEDING

Preliminary Report on Prolonging the Viability of Spermatozoa in Vitro*

A. H. FRANK, D.V.M., C. A. SMITH, D.V.M., and A. EICHHORN, D.V.S.

Beltsville, Md.

THE ADVANTAGES TO be derived from the practice of artificial insemination in cattle and other species of animals increase as the keeping qualities of semen are prolonged. The greater the length of time that semen can be stored and still retain its viability and power of fertilization, the greater the number of cows which may be inseminated with it under average conditions. Of prime importance in this connection is the fact that semen could be transported greater distances for insemination purposes.

The following four procedures have heretofore been used, either singly or in combination, for the preservation and dilution of semen: (1) addition of gelatin and other substances to reduce or subdue activity; (2) buffer solutions, such as Ringer's and Locke's; (3) nutritive solutions, such as various sugars or egg yolk; and (4) storage at low temperature. Undiluted semen kept at room or body temperature loses its viability within a few hours.

Bull semen, undiluted or mixed with buffers, can be stored at 2 C. from one to two days and in rare instances longer without impairment of its fertilizing ability. The use of gelatin has been found to be of only slight value, if any. Most nutritive mediums have prolonged slightly the fertilizing properties of semen, especially egg-yolk buffer,¹ which regularly prolongs the fertilizing power of semen from two days to three and four days. By far the most essential of these methods is storage at

2 to 10 C., which keeps the sperm practically immotile.

In connection with our studies of the bacterial flora of bull semen and the effect of bacteria on its storage, various other vehicles have been tried in an effort to prolong the viability of sperm cells and thus furnish a means for the furtherance of our studies.

A suspending medium prepared from the developing chick embryo has proved remarkably effective in prolonging the viability of bull semen at both incubator and refrigerator temperatures.

This embryonic tissue extract is prepared by emulsifying 10- to 13-day-old whole chick embryos in a TenBroeck tissue grinder. No diluent is added. The material is then centrifuged at 2,700 to 3,000 r.p.m. for 30 minutes, and the supernatant fluid is decanted. Approximately 30 per cent fluid, by volume, is thus obtained. Dilutions are made of 1 cc. of semen in 4 cc. of supernatant fluid.

Spermatozoa suspended in embryonic tissue extract have retained approximately their original percentage and extent of motility after six hours of storage in the incubator of 37.5 C., whereas in the yolk buffer suspensions they were dead at the end of 3½ hours. Samples of the same ejaculate which were covered with oil, suspended in buffer solutions or in various sugar solutions were dead at the end of four hours, when kept at room temperature.

Portions of each of the above samples were stored at 2 C. In the embryonic tissue extract suspensions, live spermatozoa were

*From the Animal Disease Station, Bureau of Animal Industry, U. S. Department of Agriculture.

¹Phillips, P. H., and Lardy, H. A.: *J. Dairy Sci.*, xxiii (1940), p. 399.

observed up to 22 days as compared with six days for that in egg-yolk buffer solution. None of the other samples showed viability after six days of storage. In subsequent work, semen of greater initial motility from four different bulls, when suspended in embryonic tissue extract and stored at 2 C., has retained viability as exhibited by convulsive movement of spermatozoa for 37, 41, 44 and 46 days, respectively.

The fertilizing power of semen is apparently not altered by the embryonic tissue extract, as six cows have been impregnated with semen suspended in this extract. Further work is being conducted to determine the greatest length of time semen may be stored in this medium without impairment of its fertilization powers.

Monstra Bigemia, Duplicatus Anterior

Except for curiosity, there is no particular importance to attach to monsters in animal production. As neither their cause nor a way to prevent them is known, but



—Courtesy Dutch East Indies Veterinary Journal.
Monstra bigemia, duplicatus anterior: bovine.

few monsters "make" the columns of veterinary journals. The one herewith described is unique because of its source—a jonkeer of the Dutch East Indies, who is also a veterinarian specializing in equine medicine. A jonkeer is the son of a baron and, therefore, a nobleman. His assistants look after the prosaic farm animals. One of these, Wedana van Tangoel, district veterinarian of Djember, is the reporter of

this case. The text is by Jonkeer D.W.J. de Vor, who classifies and describes the monster scientifically for publication. The delivery was difficult, as might be surmised. The mother, a Java cow, died. The development of the fetus indicates that it survived intrauterine life right up to the time of parturition.

The Artificial Eye Hokum

Next to the hocus-pocus of filling carious cavities (which do not exist) comes the fitting of artificial eyes in animals. Although no animal has ever worn an artificial eye successfully, from time to time misled or willing reporters write catchy articles explaining how the local veterinarian performed a delicate operation on a dog's eye and replaced the lost optic with an artifact, as a clipping at hand says, "after searching the glasseye market for a match."

The glass eye (shell) is a messy, painful thing, soiled with pus and tears and shedding cells. It has to be removed for cleaning. In dogs, this is no deterrent. If Newton's law doesn't work right off, a quick shake of the head or stroke of the paw will do the trick as fast as the astonished doctor can put it back. In the horse, things are different. Not being apt at head shaking and pawing at the eyes, the shell stays put, but by the time the *dolor, rubor* and *tumor* of the old school yields to normalcy, the gentlest victim of this cosmetic intervention takes on the ways of the wicked broncho when approached for the removal and replacement operation. And, it's a major operation. If and when the twitch fails, the task can be accomplished daily with ropes or operating *travail*.

In conclusion: After one try at putting glass eyes into the globeless orbit of animals, the answer to the next request is "Nix on that."

The output of chicks by commercial hatcheries for the first quarter of 1941 was the largest on record.

CLINICAL DATA

Allergic poisons enter the body in three ways: (1) They are ingested with food; (2) they are inhaled with respiratory air; and (3) they get in through the pores of the skin.

The control of *Eimeria tenella* infection of chicks by the use of antihemorrhagic vitamin K was the subject of a paper read before the June (1941) meeting of the Society of Experimental Biology and Medicine.

More than \$1,100,000 will be spent during the next 12 months in the fight against mosquitoes around the major military camps. The work will be conducted under the combined direction of the medical and quartermaster departments.

With importation cut off, certain American plants are proposed to supply demands. Ergot, capsicum and strychnine can be produced in this country. American rye ergot, tabasco peppers and *Strychnos spinosa*, grown in Florida, are available in this country.

Given at the beginning of or during parturition, calcium gluconate solutions stimulate uterine contraction. The intensity but not the duration of the contractions is increased. Definite stimulation was obtained in 23 out of 26 human patients.—*American Journal of Obstetrics and Gynecology*.

On account of being a valuable drug in the care of expectant and nursing mothers, calcium gluconate has become an important drug in human medicine. It was little known and little used, however, before Greig and his coworkers discovered its value in the treatment of milk fever of

cows. Calcium gluconate is a gift of the veterinary profession to mankind.

The pH of the blood oscillates between 7.3 and 7.4, or within one tenth of a point. The extreme range, not particularly abnormal, is 7.0 to 7.8. The ability of the body to neutralize the medley in unmeasured amounts of acids and alkalies taken into the digestive tract is certainly one of the marvels of life.

To remove stuck plungers of glass syringes, inject water into the inlet with a syringe of smaller dimensions. In lieu of the special syringe sold for that purpose, a common glass intradermal syringe with a short 22-gauge needle will answer the purpose. *Ratio*: Fill the syringe with water and pass the short needle through a small piece of sheet rubber to act as a gasket, then force the water into the "frozen" syringe through the inlet, pressing hard to prevent leakage. "If at first you don't succeed try, try again."

C. E. Knoop of the Ohio Agricultural Experiment Station (*Hoard's Dairyman*, June 10, 1941) is quoted as having proved that cows swallow iron particles by accident rather than by intention. Unfortunately, the experiment is not convincing:

Thirty 20-penny nails were cut into halves and mixed with feed to which a Holstein and a Jersey were given access along with their regular meals for 17 days. The autopsies held at the end of this period revealed but one of the half nails in the stomach of the Jersey and none in the Holstein.

From this observation the author concludes (as quoted) that cows do not consume iron intentionally. This, we believe, is drawing an important conclusion without sufficient proof.

Pseudotuberculosis in Horses and Cattle*

HAZEL HAMMERSLAND and H. F. WILKINS, D.V.M.

Bozeman, Mont.

IN THE FALL of 1940, we were advised of a swollen breast condition in horses which, after a period of a week or two, suppurated, broke and discharged a thick pus.

At a later date six horses were observed that had breast swellings, three of which had broken and were partially healed. The remainder of this band were reported to have had an involvement of the pectoral region, but the swellings had subsided without abscessing. According to the owner, the horses had at no time been noticeably

on the cultures 48 hours after inoculation.

The growth was grayish-white, serrated and dry. Stained smears from the cultures revealed a small, nonmotile, gram-positive rod. Gelatin stabs, broth and carbohydrates were inoculated. After 48 hours of incubation the gelatin stabs were not liquefied, a granular sediment was noted in the broth, and acid, but no gas, was produced in dextrose and maltose. The organism was identified at this time as *Corynebacterium ovis*.



Two cases of pseudotuberculosis in horses.

ill, other than a stiffness in the fore quarters and difficulty in lowering the head while attempting to graze. They remained in normal physical condition.

Subsequently, similar reports were received from various districts in Montana in which was mentioned the occurrence of abscesses in the regions of the flank, shoulder and between the front legs.

LABORATORY EXAMINATIONS

Pus collected from the abscesses was examined and microscopic examinations showed a small, gram-positive rod and a few staphylococci. Bacteriologic cultures were made on serum-agar and egg-albumen mediums. A moderate growth was obtained

A saline suspension was made of the pus, and two guinea pigs were inoculated subcutaneously at the time the material was received in the laboratory.

On the nineteenth day, one of the guinea pigs was sacrificed. A large lesion was observed on one of the lobes of the liver and another one at the point of inoculation. Bacteriologic cultures were made from the pus in these lesions and the *C. ovis* organism was demonstrated.

The other guinea pig was sacrificed on the thirty-third day and no lesions were found.

After identifying this organism a search was made to determine if *C. ovis* had been reported in horses by other investigators. We located an article published in 1915 by

*From the laboratories of the Montana Livestock Sanitary Board.

Hall and Fisher¹ at Berkeley, Calif., and after reviewing their work we found that the condition discovered in horses in Montana was identical with that found by the above authors.

At the time observations were made on the horses, a cow belonging to a different owner was examined.

This cow showed a large, round swelling on the abdomen, between the umbilicus and the udder. This pendulous growth was approximately the size of a basketball. The owner stated there were other similar cases in the vicinity, but while most of the enlargements were on the abdomen, a few were noted in the prescapular region.

The pus was thick and tenacious and contained numerous small granules and some large, organized masses.

Scrapings from the thickened skin surrounding the umbilicus, particularly from the small ulcers, were made, and *Stephanofilaria stilesi* was demonstrated. Microscopic smears made from the pus revealed a gram-positive rod accompanied by a gram-negative rod and staphylococci.

Bacteriologic cultures were made, but due to contaminating organisms a pure culture was not obtained.

A guinea pig was inoculated subcutaneously at this time with 0.5 cc. of an inoculum prepared from the pus.

Thirty-three days following inoculation the guinea pig was sacrificed. No lesions were found in the viscera, but a greenish-colored pus was present in the prescapular gland. A gram-positive rod was demonstrated.

Serum-agar and egg-albumen mediums were inoculated from this pus. In 48 hours a moderate growth was obtained and it was transferred into other laboratory medium. The organism was identified as *C. ovis*.

During the past year a calf was observed to be infected with the *C. ovis* in which there was an extensive involvement of the liver, lungs and spleen.

¹Hall, I. C., and Fisher, C. W.: Suppurative lesions in horses and a calf of California due to diphtheroid bacillus of Preisz-Nocard. J.A.V.M.A., xlviii (Oct. 1915), pp. 18-30.

CONCLUSIONS

Six horses and one cow were proved to have been infected with the *Corynebacterium ovis* organism.

It is believed that when more extensive observations are made, a site of entrance and a medium for the transmission of the infection will be found.

Rabies in the United States*

There were 661 cases of rabies in animals in the United States during the first quarter of 1941 (Jan.-March), and 7 cases in human beings. For the same period in 1940, there were 693 cases in animals and but 2 in man.

A study of these figures by states shows that there was no parallelism between the reported incidence of rabies in the human and animal populations. In fact, the figures run contrariwise. Selecting figures from the report to show the discrepancy, we have:

State	Animal Cases	Human Cases
New Jersey	88	none
Ohio	none	2
Illinois	67	none
Georgia	none	2
California	101	1
New York	48	1
So. Carolina	95	none
Arkansas	70	none
West Virginia	none	1

The states having 20 or more cases in animals and none in man were: Alabama (30), Texas (34), New Mexico (35) and Oregon (20). In 26 states there was no rabies in either man or animals. The states in which the 7 human cases occurred are shown in the table. The states having fewer than 20 animal cases were: Massachusetts (7), Rhode Island (3), Connecticut (1), Indiana (17), Michigan (9), Minnesota (3), Iowa (8), Kansas (3), Delaware (2).

Admitted that a period of three months is not sufficient to be taken as a criterion in collimating cause with effect in vital statistics on rabies in the United States, the figures for the incidence of rabies in animals do show the imperfection of our fact-finding system.

*Excerpt from Public Health Reports, lvi (May 30, 1941), pp. 1179-1180.

A Strip Cup with an Attached pH Testing Device*

EDWARD J. FOLEY

Notre Dame, Ind.

SINCE IT WAS introduced by Moak many years ago, the strip cup has become an indispensable aid in the production of high-quality milk. For instance, its use is mandatory in the production of certified milk. Tests to detect deviations from normal pH values of milk also are widely used. One of the most convenient methods of deter-



Fig. 1. A strip cup with a screen of 6-in. diameter to which four rust-proof pins are secured to form the corners of a 1-in. square. A square of brom-cresol-purple indicator paper is impaled under the pins and held at a height of $\frac{1}{4}$ in. above the surface of the screen.

mining the pH of milk is the use of "indicator papers"—small squares of absorbent paper impregnated on each corner with a drop of brom-cresol purple or other indicator solution.

Little work appears to have been done on the comparative merits, in diagnosis, of the strip cup and tests of pH of udder milk. Although the occurrence of positive strip-cup observations is almost invariably accompanied by changes in pH, in certain instances udder secretions may be negative by the strip cup when they are definitely alkaline by the indicator test. Hucker and Hansen¹ found that 30 per cent of the

samples in their series were positive to the strip-cup test when the pH was between 6.8 and 7.0; among samples with a pH of 7.1 to 7.4, 98 per cent gave positive strip-cup readings.

Minor alterations in strip-cup construction make it possible to secure indicator-paper squares, above the screen and both tests can be carried out conveniently and effectively in one operation. A strip cup with a screen of rather wide diameter (6 in.) and a device for securing the paper above the screen are necessary. It is imperative that the indicator paper be held at a sufficient height ($\frac{1}{4}$ in.) above the strip-cup screen to avoid contact and possible error which might result because of contamination of the indicator with abnormal milk remaining on the screen. Various means may be used to hold the indicator paper above the screen. The most convenient, perhaps, is four sharp rust-proof pins forced up through the screen and soldered to it on the under side. Slender copper tacks serve the purpose.

A strip cup is illustrated in figure 1 with indicator paper impaled on pins fastened to the screen, ready for use.

Cows are tested by expressing a stream from the separate quarters onto separate impregnated corners of the squares of paper. The milk strikes the corner and splashes down onto the screen. Readings are made directly, attention being given to significant color changes and to the occurrence of flakes on the screen. The presence of flakes adhering to the paper is easily noted, since their light color is in sharp contrast to the deep purple of the indicator when high pH milk is encountered. The care that must be exercised in expressing milk onto the impregnated corners of the indicator papers greatly in-

*From the laboratories of bacteriology, University of Notre Dame.

¹Hucker, G. J., and Hansen, P. A.: Cited by Munch-Petersen, E.: Survey of the literature on bovine mastitis to the end of 1935. Imperial Bu-

reau of Animal Health (Weybridge, Surrey, England, 1938). See also Hucker, G. J.: N. N. Agr. Exp. Sta. Bul. 626 (1933).

Eristalis Tenax Genital Myiasis in a Cow*

ERNEST C. McCULLOCH, D.V.M., Ph.D., and JOHN E. McCOY, D.V.M.

Pullman, Wash.

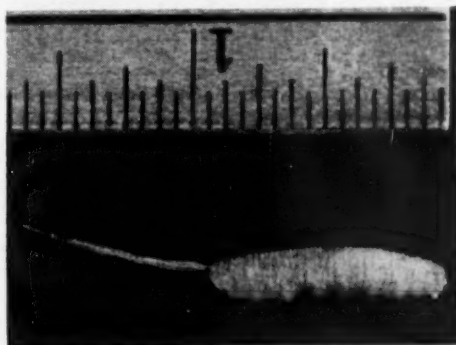
NOT INFREQUENTLY owners of cattle report the presence of large, rat-tailed, worm-like parasites in freshly passed urine or feces. Veterinarians who never have seen these rat-tailed larvae of the drone fly, *Eristalis tenax*, have been inclined to doubt the veracity of the report, while those who have observed these larvae in erratic locations have been puzzled, since most texts on veterinary parasitology make no mention of this insect larva.

On March 20, 1941, a cow, case 7986, calved and as a result of metritis had retained placenta. After a series of treatments the placenta finally passed, but a severe degree of metritis remained, which finally resulted in an abscess formation in the wall of the uterus and adhesions to surrounding organs and tissues; either large, intrapelvic cysts or abscesses also developed.

About the first of July, approximately 3½ months after calving, and continuing for about a month, the owners reported that with almost every urination the cow passed pus containing from one to five rat-tailed larvae, although her physical condition had improved. When the suggestion was made

that these larvae probably were living in crevices in the gutter of the barn and were merely washed out where they could be seen or made more active by the urine, the owner caught a complete urination in a clean bucket and five of these parasites were found. One of them is shown in the accompanying photograph.

The invasion of animal and human body cavities and even tissues by this larva has been reported previously, although, as Herms¹ states, "The frequency with which the 'rat-tailed' larvae of the drone fly, *Eristalis tenax*, Linn., occur in liquid excrement must lead to extreme caution in



Rat-tailed larva of the drone fly, *Eristalis tenax*, passed in the urine of a cow.

*From the Division of Veterinary Science, Agricultural Experiment Station, and the College of Veterinary Medicine, State College of Washington.

(Continued from preceding page)

increases the attention with which routine strip-cup examinations are carried out.

SUMMARY

A strip cup is described which is adaptable for pH determinations by means of indicator papers secured above the center area of the screen in the same operation with the "flake test."

Combining the tests in one operation has two advantages: (1) It affords a greater range of diagnostic usefulness and (2) the carefulness of routine strip-cup examinations is increased.

accepting reports that these larvae have been evacuated with discharges from the bowels." Hall and Muir,² however, report a case of gastric myiasis with this parasite in a boy, as well as two cases in which these larvae were reported in the diseased vagina of cows. D. G. Hall³ in a communication to Dove³ gave additional reports of intestinal myiasis in man due to *E. tenax*.

According to Hutyra, Marek and Man-

¹Herms, W. B.: Medical Entomology (3rd ed., The Macmillan Company, New York, 1939).

²Hall, M. C., and Muir, J. T.: A critical study of myiasis due to *Eristalis*. Arch. Int. Med., xi (1913), pp. 193-203.

³Hall, D. G.: Personal communication reported by Dove. (Dove, W. E.: Myiasis in man. J. Econ. Ent., xxx (1937), pp. 29-39.)

ninger¹ "Jensen found in a cavity the size of a pigeon's egg in the fourth thoracic vertebra three living larvae of the bee-like dipteroid, *Eristalis tenax*, which presumably reached this situation by way of the lymph stream from a skin wound."

The adult drone fly, while quite common in many regions, passes its existence almost unrecognized and is avoided by many people because of its extraordinary resemblance to the honey bee. Commenting upon this, the French naturalist, Rêaumur, remarked, "I scarcely ever dare to take into my hand without hesitating, one of these two-winged flies." According to Dolley and Haines,⁵ the Roman emperor, Heliogabalus, who evidently was the practical joker of the third century, was accustomed to send his friends vessels filled with living drone flies. Also, it is probable that the close mimicry of the harmless adult drone fly to the honey bee and the presence of large numbers of these flies around the carcasses of dead animals were responsible for the belief which persisted for centuries that dead animals gave rise to swarms of bees.

Dolley⁶ and coworkers observed that in captivity the females began laying eggs about ten days after emergence and laid approximately 3,000 eggs in about 30 days. The eggs hatch in approximately 36 hours and the larval stage lasts about two weeks under optimum conditions, although this may extend to 70 days when the temperature is low or food scarce. The pupal stage lasts approximately eight days.

The female possesses a long ovipositor and attaches the eggs together, about 300 being laid in one mass. This would account for the very large numbers of larvae passed by infested animals.

For the first few hours after hatching the larvae are strongly attracted to light; later they seek darkness. They prefer highly

contaminated water or liquid feces and utilize the "tail" to thrust periscope-wise above the stagnant surface and obtain air.

The "tail" is the most striking anatomic feature. Two large tracheal tubes can be seen extending from the tip of the "tail" through the body to two spiracles at the anterior end. The tip of the "tail" is provided with a tuft of hair-like processes which are covered with an oily secretion. This serves to keep the tip above the surface of the film while the larva burrows deeply into the material on which it is feeding. Even more remarkable is the fact that the "tail" can be distended or very much shortened by one portion being telescoped within the other. In extreme instances it can be distended to 5 inches.

Equine Colic

The author condemns the use of drenches of turpentine and linseed oil and likewise arecoline and eserine in the treatment of equine colics. The use of the stomach tube, salines, narcotics and the judicious use of the trocar and cannula shorten the course of the attack but do not materially affect the mortality. About 85 per cent recover spontaneously. The cause is attributed to disordered ferment-secreting cells. [Rainey, W. *Equine Colic. Journal of the South African Veterinary Medical Association*, 1939. Abstract. *The Veterinary Record* lii (April 26, 1941), p. 243.]

Comment.—The bare statement that the use of the trocar and cannula and the stomach tube does not reduce the mortality of equine colic is a strange conclusion in the light of widely published reports to the effect that the evacuation of the digestive tract by these means in the hands of the experienced has reduced the mortality to a low rate in all colics not due to structural alterations (volvulus, strangulations, tumors, enteritis, etc.).

Build up a wall of defense for your government by buying Defense Bonds and Stamps.

¹Hutyra, F., Marek, J., and Manninger, R.: Special Pathology and Therapeutics of the Diseases of Domestic Animals (4th Eng. ed., Baillière, Tindall & Cox, London, 1938), iii, p. 383.

⁵Dolley, W., and Haines, H. G.: An entomological sheep in wolf's clothing. *Sci. Monthly*, xxxi (1930), pp. 508-516.

⁶Dolley, W., Hassett, C. C., Bowen, W. B., and Phillips, G.: Culture of the drone fly, *Eristalis tenax*. *Sci.*, n.s. lxxviii (1933), pp. 313-314.

Swine Erysipelas*

J. H. SHORE, D.V.M.†

Fort Dodge, Iowa

ACCORDING to some of the early writers swine erysipelas was at one time confused with anthrax. Nearly 60 years ago when the first recorded studies of the disease were made, Pasteur apparently had some difficulty in distinguishing it from anthrax. Just why this difficulty arose is not now understandable. Certainly, the causal agents of anthrax and erysipelas do not resemble each other. Pasteur, perhaps, was observing a contaminant, thinking he had isolated the true etiologic factor. Nevertheless, these early investigations apparently resulted in the preparation of a satisfactory serum for immunization purposes.

The causal organism of the disease was finally isolated by Loeffler in 1885 who with Schutz differentiated the disease from cholera. The disease was known in Europe for many years, often very severe, coming in waves of increased virulence. For a long while it was thought not to exist in the United States. It is not known whether this belief was erroneous, but it seems from what has happened in recent years the disease seems to have existed here unrecognized for many years. In 1887, Theobald Smith reported finding the organism in an outbreak of a swine disease. In 1922, Creech of the U. S. Bureau of Animal Industry found the bacillus in "an urticarial disease of swine." The same year, Giltner (*ibid.*) described a disease of pigs as swine erysipelas, and Ward (*ibid.*) found that *Rhusiopathiae suis* causes a polyarthritis in swine. The nationwide spreading of the disease appears to correspond to the coming of livestock trucking, itinerant truckers, community sales and sales barns. Today, we know that swine erysipelas is a threat to the swine breeding industry, although cholera remains the more impor-

tant of the two plagues. Its importance was first realized in South Dakota and northwestern Nebraska, whence it traveled east and south to become firmly entrenched in adjacent states particularly those bordering on the Missouri River. . . . The organism responsible appears to lead a saprophytic life in the soil (Creech) but the causes of the stepped up virulence from time to time are unknown. . . . It possesses unusual resistance to disinfectants and to unfavorable climatic influences. . . . Dale of the BAI cultivated the organism in a medium containing 0.25 per cent of phenol. . . . Hogs recovered may probably remain carriers. . . . Though the infection occurs in a large number of other species including man, swine seem to be the natural host of the specific organism. Its similarity to the specific organism of mouse typhoid has been pointed out but the relation of the two infections remains unknown.

In regard to control, all are aware that a potent antiserum is available for the treatment of the sick, that is, for animals not too long neglected. . . . The immunity induced is passive and therefore of short duration. . . . The serum is prepared under strict regulations enforced by the U. S. Bureau of Animal Industry. . . . The potency test requires the use of pigeons, a species of animals that is highly susceptible to the action of the organism. Each test requires the use of fresh birds.

A plan for producing active immunity is being tried in Nebraska. It is based upon simultaneous vaccination with virulent organisms and antiserum. . . . Nebraska is one of the states where swine erysipelas has become firmly entrenched. The losses there have been considerable. The test is being carried out under the supervision of the federal Bureau and the state officials. . . . The cultures are prepared in the government laboratory. . . . To date it seems that in some events the vaccinated swine again

*Excerpts from a paper read before the annual meeting of the Southern Veterinary Medical Association, Birmingham, Ala., November 13-15, 1940.

†Pathologist, Fort Dodge Serum Company.

become susceptible. An additional dose of the virus (bacteria) some weeks later seems to afford permanent immunity, however.

In man the disease—called erysipeloid—is mild. The mortality in man is practically nil, as was brought out at the symposium on the subject at the Washington meeting of the AVMA. . . . The human form responds to serum but there is some danger from allergic reactions. . . . It is most common in persons handling swine or swine products and is manifested as a local infection generally of the hand. It caused intense pain and disables the patient for a considerable time.

A pitfall in the handling of swine erysipelas to keep in mind is vaccinating against that disease and overlooking cholera in unvaccinated (cholera) hogs. . . . When acute, the two diseases may be difficult to differentiate by clinical observations alone. The use of erysipelas antiserum (anti-swine-erysipelas serum) through the quick relief obtained enables the practitioner to make the differentiation. . . . If cholera existed concurrently, there would be no improvement. . . . The swine practitioner should not become so erysipelas-minded as to forget cholera. Chronic erysipelas is not so difficult to differentiate but there have been mistakes where laboratory examinations were not made.

The Local Action of Aloes on Regeneration

Perhaps as far back as Galen, aloes was used as a local application for wounds. The juice—fresh, decocted or dried (in-spissated)—was used widely for that purpose. When alcoholic extraction came into use, these simple preparations were replaced by such compounds as *tinctura aloes et myrrhae*, *tinctura benzoini compositus* (Friar's balsam) and others. Although primarily intended for internal medicine by physicians, veterinarians in all modern history used these in wound treatment. Books on veterinary medicine in all modern times (until recent years) have spoken highly of the healing properties of aloes.

Dadd's¹ favorite wound treatment consisted of aloes, 8 oz.; myrrh, catechu and benzoin, of each 4 oz.; and rum, 8 pt. Dadd flourished in the 1850s. Finley Dunn's² materia medica, bible of English-language veterinary schools from 1854 to well into the 20th century, recommended Friar's balsam for wounds. *Therapeutics* by H. C. Wood,³ classical work in human medicine from 1875 to 1900 and beyond, writes of *tinctura aloes et myrrhae* as a treatment for amenorrhoea, but makes no mention of its topical use.

A survey of the literature we have available shows definitely that aloes was widely employed in treating the wounds of animals. It was highly praised for its action in indolent (ulcerative) sores, and it lost caste in that rôle only at the turn of the century when bacteriology had turned all minds to germ killing. Drugs having mysterious, recondite powers over regeneration went into the discard. The modern works on therapeutics have nothing to say about this class of drugs. The juicy leaf of the aloe, which natives of the tropics used in the local treatment of burns through the centuries, was forgotten until a St. Louis surgeon accidentally discovered its value in the treatment of x-ray burns.

Claude L. Horn (1941), USDA, Puerto Rico, writes of the extensive use of "zabalo" (= Barbadoes aloes) by the natives of that island in the treatment of burns.

Without insisting that aloes somehow vitalizes the process of epithelization, its healing action where cutaneous epithelium is wiped out over large areas (fire burns, scaldings, x-ray burns, large ulcers), seems to indicate that therein lies its dynamics.

¹Dadd, George H.: *The Modern Horse Doctor* (John P. Jewett & Company, Cleveland, Ohio, 1854), p. 418.

²Dunn, Finley: *Veterinary Medicines* (Revised Ed., Wm. R. Jenkins & Company, New York, 1899), pp. 216 and 292.

³Wood, H. C.: *A Treatise on Therapeutics* (J. R. Lippincott & Company, Philadelphia, 1894), p. 766.

The annual income of American farmers from hen eggs is about \$600,000,000. To this sum distributors add about \$300,000,000.—*From Food Industries.*

Lameness Associated with Kidney Disease in Two Cattle*

A. HENRY CRAIGE, JR., V.M.D., and JOHN D. BECK, V.M.D.

Philadelphia, Pa.

A POSSIBLE relationship between kidney disease and bone lesions was suggested by two cases brought to this hospital, a young bull and an aged cow, both of which showed chronic lameness in conjunction with nephritis proved on autopsy. In both cases the first symptoms noticed were lameness, swelling and tenderness affecting the fetlocks of one animal and the hocks of the other. After one month of lameness the cow was slaughtered; the bull died suddenly three months from the time lameness was first noticed.

The bull was a Guernsey, 11 months old when the symptoms appeared, in good condition and receiving a satisfactory ration. The owner attributed the misfortune to an injury sustained when he was knocked down by a cow. Thereafter his appetite declined and he lost weight progressively. Three months later he was distinctly emaciated. Depraved appetite was a prominent symptom; he licked clothing, the hardware of his quarters and other objects coming within his reach. Diarrhea developed later, the odorous, watery feces becoming bloody toward the end. Body temperature was low normal (99 F.) throughout the course of observation, while pulse rate and respiratory frequency were unaffected.

Laboratory studies a few days before death gave the following results:

Blood:

Red count, 4,350,000 per mm.³
Hemoglobin, 6 Gm. per 100 cc.
Mean corpuscular hemoglobin, 14 mg.¹⁰
White count 14,100 per mm.⁸

Blood serum:

Total calcium, 8.3 mg. per 100 cc.
Inorganic phosphorus, 3.7 mg.
Non-protein nitrogen, 300 mg.
Protein, 5.1 Gm.

Urine:

(Date)	11-8-40	11-11-40*	11-11-40†
Spec. grav.	1.013	1.016	1.016
Color	pale yellow	pale yellow	red (bloody)
Albumin	+	++	+++
Occult blood	—	—	+++

Sugar, acetone, indican and bile were negative in all tests; no casts were observed on microscopic examination, although red corpuscles were numerous in the last specimen. Reaction was alkaline in all tests. Corynebacteria were not found.

Radiology:

"Epiphyseal structure appears to be that of rickets, with invasion of the diaphyses."

Miscellaneous:

Serology: Brucella agglutination negative
Immunology: tuberculin skin reaction negative
Feces: (1) light trichostrongyloides
(2) acid-fast organisms (Johne's ?)
negative

A diagnosis of impaired kidney function was made *ante mortem* on the basis of the high blood non-protein nitrogen (retention) together with hyposthenuria, pale urine on repeated tests and persistent albuminuria. The bone changes revealed by radiologic examination indicated that there had been either inadequate deposition of bone salts (rickets) or the salts originally present had been removed (osteomalacia). In either event, the bones were no doubt weaker than normal, and if the condition had been in progress prior to when the bull was injured it is quite possible that a sudden strain might have damaged the weakened bones.

We were misled temporarily when a normal serum inorganic phosphorus level was found. In cases of nephritic retention in man and the dog it is common to encounter high phosphorus levels when the non-protein nitrogen is also high. It has been assumed in the past that the lesions resulting in slow excretion of nitrogen also re-

*From the Veterinary Hospital, University of Pennsylvania.

Antemortem* and postmortem† examinations on the day of death.



Lipoid degeneration of kidney. Kidney on left side was obtained from an 18-year-old Ayrshire cow (second case). It was yellowish gray, as indicated by the relative paleness compared with the normal kidney from a calf (size was normal). White streaks and spots of scar tissue in the cortex can be detected on the cut surface.

tard phosphorus elimination. Evidently, this is not necessarily true for cattle.

The red count and hemoglobin level were below the normal minima for dairy bulls, according to our standards, and the mean corpuscular hemoglobin could be regarded as low normal. These alterations were attributed to the prolonged anorexia and general inanition. Serum proteins also were low normal, presumably the result of the same malnutrition coupled with a loss of proteins due to albuminuria. The moderate leucocytosis corresponds to a similar reaction in dogs with chronic nephritis.

On postmortem examination the principal changes noted in the long bones were enlargement of the fetlocks and hocks, with rarefaction of the diaphyses. The costochondral articulations revealed the characteristic "beading" of rachitis. Both kidneys were shrunk, pale gray, of leathery texture and adherent to the capsule. In addition, the intestine showed ulcerative enteritis and the respiratory system had

petechial hemorrhages in the trachea and interstitial emphysema of the lungs.

The cow was an 18-year-old Ayrshire, in good condition when first examined, having been lame but one week. The lameness was evinced by pointing of the left hind foot and swelling in both hocks. Gastrointestinal symptoms consisted of anorexia and, later, diarrhea which persisted up to the time the animal was destroyed. The temperature, pulse and respiratory rate remained normal.

Laboratory findings were as follows:

Urine:

Specific gravity, 1.015
Color, pale yellow
Reaction, alkaline
Albumin, +++
Sugar, negative
Bile, +++

Miscellaneous:

Serology: Brucella agglutination negative
Feces, acid-fast organisms negative (Johne's disease)

Although the laboratory examination was

incomplete, the findings compare closely with those of the first case. Low specific gravity and pale color of the urine, together with albuminuria, suggest kidney damage. The absence of acid-fast organisms in the feces and intestinal mucus tended to show that the diarrhea was not due to Johne's disease. The marked bile reaction, absent in the former subject, possibly may have been due to the liver changes discovered *post mortem*.

The autopsy confirmed the diagnosis of kidney damage. Both kidneys revealed evidence of lipoid degeneration in conjunction with fibrosis. Both kidneys were normal in size and tough to cut and were pale yellowish gray on the cut surface. There was a lymphocytic infiltration similar to that commonly encountered with renal pathology of the dog. On casual examination the bones of the hocks were found to be enlarged and the amount of fluid in the joint cavities in excess of the normal. The liver was studded with small areas of redness (telangiectasis). The gastrointestinal tract was diffusely inflamed and showed numerous areas of hemorrhage.

DISCUSSION

Veterinarians are more familiar with kidney damage in dogs than in other species. This hospital, in common with other hospitals accommodating large animals, has encountered many cases similar to the ones described in this report. It is only of late, however, that we have come to realize the high incidence of this disease among cattle and to resort to laboratory procedures to supplement and confirm the physical examination. By this means it is not difficult to make the diagnosis *ante mortem*, as illustrated by the cases cited.

While it is not our wish to imply that lameness is pathognomonic of kidney disease in cattle, it is well to keep in mind the possibility of a relationship between the two. Observations on human kidney patients indicate that nephritics in the earlier stages of the disease excrete phosphorus more rapidly than normal people and that elimination often exceeds intake (*i.e.*, negative phosphorus balance) except when

they receive diets unusually rich in phosphorus. This might be interpreted to mean that in the preuremic stage of nephritis there is a distinct tendency toward withdrawal of the bone salts, with the effect of weakening the bone structure and paving the way for injuries. Whether or not this explanation is correct, cases like the ones reviewed call attention to the possibility of kidney damage whenever there is lameness of unknown origin.

Paper Containers for Market Milk Not New

The use of paper to make "bottles" for the delivery of milk commercially is not a novelty.

In his writings on milk hygiene about 40 years ago, Winslow¹ mentioned the paper container and, currently, the U. S. Public Health Service² points out that paper milk bottles were manufactured in Philadelphia, Washington, San Francisco and the maritime provinces of Canada shortly after the turn of the century.

It was, however, not until 1929 and 1930 that paraffined milk bottles began to be extensively used. New York City—pioneer in milk hygiene—was the first to use them on a wide scale. At first the paper bottle was used mainly for wholesale deliveries, that is, for the retail store, restaurant and hotel trade. House-to-house delivery in paper cartons came later. At the present time, the paraffined paper carton is the milk package preferred in numerous large and small cities throughout the country.

The hygienic property of paper for this purpose lies in the paraffin coating. The paraffin not only seals the paper stock and finished box hermetically, but it simultaneously provides an inside and outside covering that is waterproof and free from odor, taste, color and bacteria.

¹Winslow, K.: The production and handling of clean milk. (Wm. Jenkins & Company, New York, 1907.)

²Moss, J. M., Thomas, R. C., and Haven, M. K.: Bactericidal effect of the paraffining of paper board used for paper milk containers. Public Health Reports, lvi (May 1941), pp. 944-959.

EDITORIAL

The Source of Our Presidents

AS THE ASSOCIATION is going into its eighth decennium, a study of the kind of cricket it has been playing all these years seems wholesome. Such a study at this time is in order because the membership, in having multiplied threefold in recent years, evidently contains many men who have not stopped to investigate the make-up and the spirit of the society they are asked to support. Moreover, since the Association with its constituent state organizations establishes the policies, plans the work and dictates the behavior of the nation's veterinarians, nothing could be more useful than an understanding of the details of its operation. We mean, useful to self, to profession, to country.

Inasmuch as history is a society's great monitor, the kind of men chosen as leaders should be an excellent criterion of its intentions. The source and the type of men the Association has chosen as its chief executives are, therefore, a key to its backbone and its soul. In so far as the choice of presidents is concerned, the question of whether there has been partiality shown to any group, any branch or any area is answered in the records set down below.

We go back only to 1890, 51 years ago, because before that date the society, though awaiting developments and territory to explore, was national only in name. From 1863 to 1890, ours was a group little known beyond the Atlantic littoral. From 1890, however, its adolescence was rapid—remarkable. Note:

Chicago	1890	Nashville	1897
Washington, D. C.	1891	Omaha	1898
Chicago	1893	Detroit	1900
Philadelphia	1894	Minneapolis	1902
Des Moines	1895	Ottawa, Ont.	1903
Buffalo	1896	St. Louis	1904

The 14 years following 1890 marked the beginning of a wanderlust that has since

taken the Association to all corners of the country: New Haven, Atlantic City, San Francisco, Portland, Los Angeles, New Orleans, Denver, Kansas City, Oklahoma City, Atlanta, Lexington, Toronto, Montreal, Cleveland, Indianapolis, Columbus. These were the cities where the Association went to expend its affluence. Where the members went for leaders (presidents) in these excursions to all sections of the country is shown in the following classification:

A) *State Livestock Sanitation*

1893.	W. L. Williams, Indiana
1899.	A. W. Clement, Maryland
1900.	Leonard Pearson, Pennsylvania
1901.	Tait Butler, Indiana
1903.	J. F. Winchester, Massachusetts
1905.	M. E. Knowles, Montana
1908.	W. H. Dalrymple, Louisiana
1917.	C. E. Cotton, Minnesota
1929.	T. E. Munce, Pennsylvania
1933.	N. F. Williams, Texas
1934.	C. P. Fitch, Minnesota
Total—11	

B) *Federal Livestock Sanitation*

1898.	D. E. Salmon, D.C.
1910.	A. D. Melvin, D.C.
1913.	J. R. Mohler, D.C.
1931.	Maurice C. Hall, D.C.
1941.	A. E. Wight, D.C.
Total—5	

C) *Private Practice*

1890.	C. B. Michener, New York
1893.	W. Horace Hoskins, Pennsylvania*
1904.	Roscoe R. Bell, New York
1908.	W. Herbert Lowe, New Jersey
1912.	S. Brenton, Michigan
1923.	W. H. Welch, Illinois
1925.	L. A. Merillat, Illinois
1927.	T. A. Sigler, Indiana
1928.	Reuben Hilty, Ohio
1930.	T. H. Ferguson, Wisconsin
1935.	R. S. MacKellar, New York
1936.	J. C. Flynn, Missouri
1940.	Cassius Way, New York
Total—13	

*Served to 1896.

D) *Veterinary College Faculties*

- 1892. R. S. Huidekoper, Pennsylvania
- 1897. F. H. Osgood, Massachusetts
- 1903. SESCO Stewart, Missouri
- 1907. James Law, New York
- 1911. G. H. Glover, Colorado
- 1915. C. J. Marshall, Pennsylvania
- 1919. V. A. Moore, New York
- 1920. C. A. Cary, Alabama†
- 1921. D. S. White, Ohio
- 1924. C. H. Stange, Iowa
- 1926. John W. Adams, Pennsylvania
- 1932. R. R. Dykstra, Kansas
- 1938. O. V. Brumley, Ohio
- 1939. H. D. Bergman, Iowa
- Total—14

E) *Commercial Laboratories*

- 1916. R. A. Archibald, California
- 1922. A. T. Kinsley, Missouri
- 1941. H. W. Jakeman, Massachusetts
- Total—3

F) *Regular Army*

- 1937. Col. R. J. Foster, D.C.
- Total—1

G) *Canada**

- 1909. R. G. Rutherford, Ottawa, Ont.
- 1918. F. Torrance, Ottawa, Ont.
- Total—2

Grand total 49

No attempt is made to classify the presidents prior to 1890. Nearly if not all of these pioneers divided their time among such duties as public service, teaching and practice, pursuant to the custom of their time.

The Army has furnished but one president (Foster). The Army group is small and commissioned rank came to them only in 1916. At the time of World War I, there were 30 living past presidents, seven of whom were incapacitated on account of extreme age. Of the remaining 23, three or perhaps more held important government positions which they were not permitted to leave to join the forming Veterinary Corps. One of these is John R. Mohler, who was offered a high rank in the Veterinary Corps, but the Secretary of Agriculture disapproved, for when a country goes to war, there are men whom the civil service can not wisely spare to the Army. In view of the exemption from age, debility and deferment for logical cases, it is to the credit

of the past presidents of the Association that nine of them held high rank and important posts in World War I. No one would question that Major Charles E. Cotton was the master mind in horse and mule sanitation in the United States. Major M. E. Knowles, former chief veterinarian of Montana, was promoted in the A.E.F. from corps veterinarian, corps I, to executive officer in charge of evacuations. Major Reuben Hilty was chief of all the veterinary hospitals of the combat troops. Lt. Colonel D. S. White was chief veterinarian, A.E.F., during one of the major operations (Meuse-Argonne). Lt. Colonel C. J. Marshall was the mainstay on organization at the Surgeon General's Office, and V. A. Moore will be remembered as one of the first to guide the surgeon general in starting a veterinary service of the rapidly forming army. L. A. Merillat became chief veterinarian of the First Army. Lieut. Maurice C. Hall, distinguished parasitologist, ran foul of incompetent veterinary officers who were too drunk from the power of recent commissions to understand the difference between discipline and silly tyranny. Colonel Foster was brought from the Philippines to go with the Army of Occupation in Germany following the memorable November 11, 1918. These facts are mentioned to indicate that those who were (or were to be) past presidents of the Association make up in a way for the small number of past presidents assignable to the "Regular Army," above.

Apportioned by states the above catalogue shows past presidents for:

- Pennsylvania—6 (Pearson, Hoskins, Marshall, Huidekoper, Adams, Munce).
- Dist. of Columbia—6 (Mohler, Wight, Hall, Foster, Melvin, Salmon).
- New York—6 (Michener, Bell, Law, Way, Moore, MacKellar).
- Ohio—3 (Hilty, White, Brumley).
- Indiana—3 (Williams, Butler, Sigler).
- Missouri—3 (Stewart, Kinsley, Flynn).
- Minnesota—2 (Cotton, Fitch).
- Massachusetts—3 (Winchester, Osgood, Jakeman).
- Iowa—2 (Stange, Bergman).
- Illinois—2 (Welch, Merillat).
- Canada—2 (Rutherford, Torrance).
- Louisiana, Michigan, Montana, Texas, New Jersey, Maryland, Kansas, Wisconsin, Colorado,

*Comparable with group B.

†Belongs also in group A.

California and Alabama each have had one president. The names are listed in previous paragraphs.

There are many things to be learned from these data. They are compiled for the purpose stated. To be noted is the wise allocation of presidents among the various divisions. The chance of being chosen president is best among the college faculties, but not markedly so. There have been 14 teachers and 13 private practitioners during the 51-year period. Next in order comes the state regulatory group, with 11 out of the 49. Among BAI executives the average has been one president per decade. Though the interval between the election of Melvin and Mohler was but three years, the next interval (Mohler to Hall) was 18 years.

What these data prove beyond all argument is that in the election of chief executives the Association has been playing cricket of the highest order since 1890; no doubt, it did so also during the 27 years prior to that date (1863-1890). The records for that dim period are not accurate enough to use for this purpose. Details of ways and means and results between Stickney (1864) and Huidekoper (1889) were never written. But from what is known otherwise about such men as Thayer, Large, Liautard, Lyman, Robertson *et al.*, one may suppose that in choosing leaders of the Association, then as now, the good of the cause was uppermost in mind. If the adage, "Whatsoever a man soweth, that shall he also reap," was ever forgotten, there is no evidence to that effect in the written annals or traditions of our 78-year-old society.

In short, your best chance of being an AVMA president is to be either teacher or practitioner.

G. A. Roberts, B.S., D.V.S.
(1875-1941)

A post-convention misfortune was the sudden death of G. A. Roberts, director of animal health of the Dominican Republic, on his way home from the Indianapolis meeting. His death occurred from cerebral apoplexy in his stateroom on board the S. S. Algonquin, August 24, as the ship was

arriving at Puerto Plata in Santo Domingo. When found stricken by the room steward, he had been putting his belongings in order for the debarkation.

Dr. Roberts was a native of Missouri, having been born at Parkville, that state, Dec. 11, 1875. He served with the 5th Missouri Volunteers during the Spanish-American War, received his baccalaureate degree at the University of Missouri in 1899 and his veterinary degree at the Kansas City Veterinary College in 1903 after taking two years in human medicine. He entered professional life at North Carolina State College, where he was associated with the late Tait Butler and B. T. Simms, now director of the Animal Disease Research Laboratory at Auburn, Ala.

In 1919, he was employed by the State of São Paulo, Brazil, for a period of three years, where he organized a school of veterinary medicine. His Brazilian sojourn ended in 1928 when after a sabbatical year in Puerto Rico, he was employed by the U. S. government as veterinarian and animal husbandman for the Virgin Islands with station at St. Croix. Seven years later (1936) he responded to the call of the Dominican Republic, which he served until his death as director of animal health.

G. A. Roberts is best known to American veterinarians for his many contributions to the literature on those tropical diseases of animals which concern the population of the Western Hemisphere. In the annals of the AVMA he will long be remembered, not only for the many annual meetings he attended regardless of distance, but mainly as the authority consulted when questions pertaining to tropical diseases arose. His final contribution to this end is the paper, "Common Tropical Diseases of Animals," which he presented at Indianapolis. It would be erroneous to leave the impression that the deceased was a prolific, space-seeking reporter. On the contrary, he wrote only when requested or when there were noteworthy matters to report.

The untimely death of Dr. Roberts is a shock beyond description—a loss to be mourned sadly, sincerely by a host of colleagues throughout the New World.

CURRENT LITERATURE

Horses, Mules Have Important Place in New Military Set-Up*

We have heard a lot about the motorization and mechanization of our army, but very little about the part the horse and mule are playing in this country's defense program. As a matter of fact, according to Colonel E. N. Hardy, chief of the Army remount service, the Army is more than doubling its strength in horses and mules from what it was before the program started.

Before the emergency the Army had approximately 25,000 horses and mules and when it gets through buying animals to bring units up to full strength it will have approximately 53,000. These will be in use with Regular Army, National Guard and R. O. T. C. units, for use of cavalry and artillery.

This estimate is on the basis of the mounted units in the Army today, but if the War Department should deem more horse and mule units are necessary, and it is quite likely that it will after the successes with horses and mules in Europe, many more will be needed. Even if there is no increase in the number of mounted units, it is estimated that replacements will amount to between 4,000 and 5,000 a year.

Colonel Hardy says in purchasing horses for military use Army officers found more good horses than they thought there were, although the total population of horses has been decreased almost 50 per cent in the last 20 years. The Colonel believes there are more good horses in the United States today than there ever have been.

He finds there has been a decrease in the percentage of finer type horses, but the so-called common horses with very little Thoroughbred blood have good conformation, good backs, good legs and feet and a good way of moving. It is his opinion that some of these coarser animals with more substance will probably prove more suitable for rough usage in the field than the finer bred animals.

The present war in Europe has taught military men here that the horse and the mule still have a definite place in conflict. Germany found that the horse can still be used to perform some functions nothing else can perform and can still do some other things better than anything else can do them. It can go where

trucks, tractors, tanks and scout cars can never reach.

In the October 1939 issue of *Sankt Georg*, a German magazine, it was said: "All cavalry will be interested in the part which the horse played on the German side in the Polish campaign. In this connection we may state without exaggeration that the rapid advance of the German Army would have been impossible without the horse."

"Furthermore, horses proved their worth in the manner that was expected. To be sure, the significance of the motorized and mechanized forces is unquestionable, but cavalry formations moved at almost the same rate of speed.



Nazi artillery on the Russian front.

Each of our infantry regiments has approximately 500 horses and most artillery is horse drawn." In accordance with the communications of the headquarters staff of the Wehrmacht in its report dealing with the campaign in Poland, five armies took part in the great decision.

"According to this, we may assume that Germany used more than 200,000 horses in the campaign in Poland and that this large number made possible the pace of advance of the attacking armies."

The report of the German headquarters staff of the campaign said: "Division commanders expressed particular appreciation of the activity of their cavalry in their reports to the Fuehrer, who was on the battlefield with his soldiers. We also have reports of conspicuous cavalry action by separate squadrons. As an

*Reprinted from Horse Show, official organ of the American Horse Show Association, August 1, 1941.

example, a squadron of the South army, led by a well-known race horse rider, boldly attacked a Polish battery set up on a difficult terrain and captured it. The losses were small in spite of a direct hit within the squadron."

Following the 1939 Polish campaign came the swift, crushing defeat of the allies in Flanders and France. In these campaigns the Germans used even more horses than in Poland. The total exceeded 791,000 horses. For many years Germany has been one of the leading nations of the world in producing horses for military use. The German remount service was at a high state of efficiency during the reign of Kaiser Wilhelm II.

When Hitler took over, the remount activities of Germany were increased while England and France cut down. Japan miscalculated her balance in mechanization in her recent and present wars in Manchukuo and China and as a result she has greatly augmented her animal components in her present armies and has provided for future production of military horses on a large scale. Italy overrated the versatility of her mechanized forces in her war on Ethiopia and had to create a new balance in favor of all sorts and types of animals, including oxen and mules.

During the first World War the United States alone exported to Europe 923,580 horses and 232,475 mules and on both sides it has been estimated a total of 4,624,220 animals were used in the fighting. In the new scheme of things both here and in Europe it is no longer necessary for horses to travel on foot long distances overland.

The trucks our army is being equipped with are the trailer type with prime movers that can be detached when the trucks are not in use. The trucks hold eight horses and men and the equipment of both. Most of the cavalry units today are called reconnaissance regiments which are half horse and half mechanized. On short notice the horses can be loaded on the trucks and carted to the scene of action, traveling in the same column with the scout cars which mount 30- and 50-calibre machine guns.

In order to promote the production of good riding horses the remount service distributed stallions all over the country from which it is estimated the production is approximately 14,000 horses a year. However, the emergency made necessary the purchase of additional horses to provide enough for an expanding army to train. The government is not buying any more polo ponies except for the use of the cadets at West Point. The horses the Army is buying, however, sometimes cost more than mules. The average price paid for a horse is \$165 while a good mule sometimes costs as high as \$180.

ABSTRACTS

Hydrogen-Ion Concentrations of the Rumen

Notwithstanding that the rumen does not secrete digestive juices, it plays an important part in the digestive process. It is a medium for moisture, heat, fermentation and maceration of coarse material. Cellulose is utilized by herbivorous animals and, according to Duke, bacteria participate in its transmutation to glucose. A certain pH range is needed for optimum bacterial fermentation, but its significance is not yet known, other than that it provides favorable conditions for the formation of gases (bloat) and their absorption, as was shown by Dougherty, who found carbon monoxide not only to be a common gas of the rumen, but one capable of causing distress even in low concentration. The pH values of the rumen contents also influence the production and absorption of hydrogen sulfide, which is believed to cause some of the distressing symptoms of acute bloat.

Two cows with permanent rumen fistulas were used. The figures registered in four tables and two graphs are lower than usual because the determinations were made *in vivo*. Two rations were fed: alfalfa alone and alfalfa and beet pulp. Readings taken three times a day for five days and every two hours for 24 hours placed the pH for alfalfa alone at 6.27 and of alfalfa and beet pulp at 6.00, and those taken every two hours for 24 hours averaged 6.30 for alfalfa and 6.07 for the alfalfa-pulp ration. The mean pH for the anterior part of the rumen was 6.27 and for the posterior part it was 6.00. [Smith, Vearl R. *In Vivo Studies of Hydrogen Ion Concentration in the Rumen of the Dairy Cow*. *Journal of Dairy Science*, xxiv (Aug. 1941), pp. 659-665.]

Vectors of Equine Encephalomyelitis in Massachusetts

With funds made available to sponsor a WPA project for the purpose of making a mosquito survey in 1939, 275,000 specimens were collected in 13 counties by 40 workers trained for the purpose by instructors of Harvard and of the state department of public health. Seven genera and more than 25 species were studied. Of these, six species of *Aedes* were demonstrated as able to transmit the eastern virus in the laboratory. They comprised 76.4 per cent of all specimens of *Aedes* collected. Larval mosquitoes formed 91.4 per cent and adults 8.6 per cent of the total. Of the six vectors incriminated, three were from salt-water marshes and three from fresh water along the Connecticut River. The peak of prevalence was reached in August. Vectors of equine en-

cephalomyelitis virus seldom enter houses. The danger is ten times greater outdoors than indoors. The *Aedes vexans* was probably the most important vector in the 1938 outbreak (human). [Feemster, Roy F., M.D., and Getting, Vlado A., M.D. *Distribution of the Vectors of Equine Encephalomyelitis in Massachusetts, American Journal of Public Health*, *xxi* (Aug. 1941), pp. 791-802.]

The Standardization of Johnin

Since tests of Johnin on positive and negative cattle for standardization is costly, it was hoped that guinea pig tests would permit more extensive trials which would lead to reliable results comparable with assays of O. T. Purified protein derivatives (= P. P. D.) were obtained by processes described in detail. It was found that P. P. D. in solution containing not more than 3 mg. per cc. gave clear-cut negative reaction in cattle known to be free from Johnin's disease while the same solution produced edematous swellings in reacting cattle. The solution retained its potency for 175 days. [Glover, R. E. *The Standardization of Johnin. The Veterinary Journal*, *xcvii* (June 1941), pp. 179-193.]

Diabetes in a Steer

The subject was a 10-year-old draft steer whose blood-sugar level rose to 490 mg. per cent and the content of serum urea to 212 mg. per cent. Normals, respectively, are 75 mg. and somewhat less than 50 mg. per cent.

The symptoms were emaciation, inappetence and atony, torpidity and myasthenia of the rumen. The autopsy revealed an indurated pancreas and a large cyst within. The mass was mainly fibrous with cancer-like areas. The liver showed fatty degeneration; the pituitary and adrenal glands were normal. The uremia was, therefore, of extrarenal origin.

The diagnosis of diabetes in cattle is sometimes made erroneously on the basis of lactose rather than glucose. Except in dogs, diabetes is rare in animals, judged from the few cases described in the literature. [Fooy, J. F. *A Case of Diabetes Mellitus in a Draft Steer. Nederlandsch Indische Bladen voor Diergeneeskunde*, *xi* (Oct. 1940), pp. 195-202.]

C. H.

Hay Fever in Dogs

Allergy, atopy and anaphylaxis are words that can be used interchangeably in describing hypersensitization in either man or the higher animals. The report of Wittich (1941) to the effect that the sternutatory symptoms of asthma and hay fever in human sufferers are comparable with those in the dog was confirmed by an observation in Minnesota. A

canine victim of hay fever yielded to desensitization with combined extracts of weed pollens and also to removal from pollen-contaminated areas. Additional observations are invoked to dispel the impression that allergy in man and animals are not identical, since skin and other tests in and out of season indicated that allergy can develop spontaneously in a higher animal. Illustrations of the Minnesota case (*loc. cit.*) are reproduced. [Editorial, *Veterinary Bulletin, Lederle Laboratories*, *x* (July-Aug. 1941), p. 112.]

Canine Tuberculosis

Following sudden death of a 7-year-old mongrel, the carcass was critically examined. There was 50 cc. of cloudy fluid in the chest and the lungs had several consolidated areas. The pericardium was covered with a fibrinous exudate and contained 30 cc. of straw-colored liquid. Ascites was pronounced, amounting to 2 liters of peritoneal fluid. The liver was studded with many small, yellow foci and had several abscesses averaging 20 cm. in diameter with central necrosis and deposits of mineral salts. Several of the mesenteric lymph nodes were enlarged and covered with a capsule enclosing a cheesy-chalky pus and blood. The nodes were undergoing necrosis. The presence of acid-fast bacilli was demonstrated (but not typed) in the central portions of the hepatic tubercles. No animal inoculations or cultures were made. The diagnosis was tuberculosis, which is rare in the region. [McClelland, R. B. *Tuberculosis in a Dog. The Cornell Veterinarian*, *xxi* (July 1941), pp. 303-305.]

Coma from Tetrachlorethylene

Tetrachlorethylene (= C_2Cl_4) was introduced into human medicine as an anthelmintic via the veterinary field by Hall and Shillinger in 1925. It was found to be safer than carbon tetrachloride, because little if any is absorbed in the intestinal tract of dogs in the absence of fat. If fat is present or if given to animals in large doses, hypnosis or even death may follow its absorption. In some countries tetrachlorethylene is preferred for mass treatment of hookworm infection. Hundreds of thousands have been thus treated. The dose ranges from 0.5 to 8 cc.

One report shows that out of 1,500 patients treated, only one showed signs of intoxication. Giddiness, complete coma, cold sweats, barely perceptible pulse and twitching of the eyelids were the symptoms. Strychnine and digitalin intramuscularly revived the patient. Of 84 patients in India given 4-cc. doses, the only ill effects experienced were sensations of drunkenness which they really enjoyed. A debilitated

girl of 18, however, suffered from vomiting and heavy drowsiness.

The author's conclusions from a longtime observation, including experiments on his own person, are that tetrachlorethylene is a safe anthelmintic in doses of 4 cc. or less for patients of small stature. The cause of the occasional hypnosis produced unexpectedly is, however, not known. The action of tetrachlorethylene is akin to that of ethylene and chloroform. The wide use of tetrachlorethylene in human medicine is justified and should not be discouraged. [*Sandground, J. H., D.Sc. Coma Following Medication with Tetrachlorethylene. J. A. M. A., cxvii (Aug. 9, 1941), p. 440.*]

Mastitis Control a War Measure

More vigilance in respect to udder infections is a war order in Schleswig-Holstein. Cows are tested for mastitis twice a year and at the same time they are closely examined for tuberculosis, brucellosis and troubles of a local character. The changing personnel and the more extensive use of milking machines has necessitated the extension of the control program beyond the health of the cows. Since the war began, the measures in regard to mastitis have been more rigidly enforced. The plan is to eradicate the disease by slaughtering diseased animals.

The examinations for mastitis are thorough. To insure completeness of the assay, milk samples of 100 cc. are taken from each quarter, not only at the start, but also at the close of each milking. [*Heinke, A. Drei Jahre Euter-gesundheitskontrolle in Schleswig-Holstein. Tiersucher, xxix (1940), pp. 281-283.*]

Phenol in Experimental Tetanus

The authors were able to show that phenol did not alter the progress of experimentally induced tetanus in dogs. Death seemed to be hastened by damaging of the central nervous system. The lethal dose of phenol (1%) in dogs was found to range from 0.3 to 0.35 Gm. per kilogram of body weight. When given simultaneously with 100 dog lethal doses of tetanus toxin into opposite veins, bioassays did not reveal any detoxifying action of the phenol, nor did the phenol modify the progress of the tetanus when but 10 dog lethal doses were used in the same way.

These experiments further revealed that dogs receiving 100 dog lethal doses of tetanus toxin could be saved with 182 to 200 times the neutralizing dose of antitoxin if given within six hours, or in seven hours with 300 times the neutralizing dose. In seven hours, however, symptoms of tetanus had developed, showing that a part of the toxin had already been fixed beyond the reach of the antitoxin. [*Thompson,*

W. D. Jr., and Friedman, L. Efficacy of Phenol and Tetanus Antitoxin in the Treatment of Experimental Tetanus. Surgery, Gynecology and Obstetrics, lxxii (May 1941); abst., J. A. M. A., cxvii (Aug. 16, 1941).]

BOOK NOTICES

Lymphatics, Lymph and Lymphoid Tissue

As seen through the eyes of the up-to-date clinician, it is easy to acquire the notion that the chemist and pathologist are marching ahead of the anatomist and physiologist. The latter are leaving some baffling mysteries to solve that must block the advance of the former. This book, just off the Harvard Press, looms up as an effort to clarify some of the details of somatic architecture and function that remain unexplained. The authors make it clear that while we may seem to understand the lymphatic system in a general way, much remains to be learned about the blood and lymph irrigation and just how it accomplishes its task at the point where the two meet to exchange material.

The permeability of blood and lymphatic capillaries which enables them to take from and pass back to the blood the fluid called lymph is a baffling detail of mammalian physiology awaiting definition. The lymphatic vessels and organs comprising the lymphoid tissue of the mammal diffused throughout the somal make-up more nearly express the nature of the living cell than any of the other circulating or residual fluids. The authors set out to aggrandize the knowledge of that fundamental system, and they succeed in doing so in a book of unusual merit in the study of medicine.

The anatomy and physiology of the lymphatic system, the permeability of the blood and lymph capillaries, lymph flow and pressure, the chemistry and physics of lymph, the biologic significance of lymphoid tissue, the lymphocytes, and the application of all this to pathology (edema, inflammation, shock, surgical anesthesia, vascular obstruction, anoxemia, etc.) are a useful compilation of facts that takes the reader into well-known but none-too-well cultivated ground. The vitamin content of lymphoid tissue and its relationship to vitamin reserves and deficiencies, for example, indicate the intimate bearing of the lymphatic system on the biologic processes around which medical science is built.

A bibliography of 42 pages and a subject index of 33 pages add materially to the value of this treatise for study and reference. It fills a gap in the veterinary-medical library. [*Lymphatics, Lymph and Lymphoid Tissue. By Cecil Kent Drinker, M.D., D.Sc., Professor of Physiology, School of Public Health, Harvard*

University, and Joseph Mendel Yoffey, M.Sc., M.D., F.R.C.S. (England), University College of South Wales and Monmouthshire, Wales. Harvard University Press, 1941. Cloth. 406 pages. Price \$4.00.]

The Vitamin Content of Meat

The purpose of this book is to cultivate a better acquaintance on the part of the general population not only with the main source of human nutrition, but also with its composition. The theme "the cattle on a thousand hills" connotes the authors' conception of amplitude, and animal-nutrition researches designate the knowledge of food values upon which multiplying populations depend. More happiness and better health will follow better knowledge of human diets, the foreword declares. The aim, however, is to summarize the knowledge we have on the nutritive value of meat. As the amount of material is vast, the original idea of publishing a bulletin was abandoned in order to more fully cover the subject in a book.

Although the study of nutrition is yet in the formative stage, the chance observations of the past no longer suffice. Watching the rate of growth from given foodstuffs or their effect on health lies in the past. A change was brought about when the white rat was introduced into biochemic research. Customarily, the authors are constrained to reemphasize that the value of food does not rest in the amount of protein, carbohydrate, fat and minerals consumed, but upon the tiny factors called vitamins. Adequate methods of evaluating these are available in the field of nutritional research and it is largely to them that the mind turns in the study of meat and meat products.

The book is divided into 14 chapters (each of which contains reference tables and an extensive bibliography), an introduction and a summary. The chapters are entitled: (2) The nutritive value of meat; (3), (4), (5), (6) vitamins A, D, E and K, and C; (7) The preparation of samples; (8) Proximate analysis of animal tissues; (9) Thiamin, vitamin B₁; (10) Riboflavin; (11) Nicotinic acid; (12) Pyridoxine, vitamin B₆; (13) Pantothenic acid; (14) Additional factors; and (15) Meat as a source of the vitamin B complex.

The value of this book to the veterinarian lies largely in the tables which give the actual vitamin contents of the various meats of the different species which, so far as requirements are known, furnish a basis for making up so-called balanced rations. Present knowledge of vitamins is summarized. [*The Vitamin Content of Meat*. By Barry A. Waisman, Ph.D., Research Professor in Biochemistry, and C. A. Elvehjem, Professor of Biochemistry, Univer-

sity of Wisconsin. 210, 9" x 7" pages. Burgess Publishing Company, Minneapolis, 1941. Price \$3.00.]

Vital Statistics of the U. S. A.

The gargantuan task of tabulating vital statistics for a population of 130 million may be admitted, although its scientific accuracy is open to criticism. This book, in two parts containing a total of 888 pages, is, nevertheless, a valuable document for the student and worker in the field of medicine. Numerous points of general interest catch the eye forthwith and so do some of its shortcomings. One of the latter are the statistics for communities where public or private institutions happen to be located. It is obviously unfair to double the mortality of a county or town by recording its institutional deaths with those of the regular population, instead of chalking them up to the inmates' resident communities. Analogous is the high mortality of regions where the sick repair in search of health. These, like institutional deaths, run into many thousands and thus give a black eye to environments where good health naturally abounds. Who, for example, would use mortalities in California as a criterion! Moreover, a reviewer* of this official statistical record charges that the recorded deaths for certain cities and rural areas are "fallacious and dangerously misleading." Death records are tampered with to hide away the truth, recalling the misleading reports on milk sickness in Ohio and Indiana through many years because the truth might injure the real estate business. The lot of the statistician of medical facts is indeed an unhappy one, but all in all his finished product is a precious record as near correct as is humanly possible to make it. Vital statistics are vital in fact, and by no means dull reading. [*Vital Statistics of the United States*. By the Bureau of Census. The Government Printing Office, 1940. Part I, 683 pp.; price \$1.75. Part II, 205 pp.; price \$1.25.]

*J. V. DePorte, American Journal of Public Health, xxxi (Aug. 1941), p. 839.

It is being predicted that the world may suffer from disastrous outbreaks of sleeping sickness as a result of the war, and it is being claimed that so-called St. Louis sleeping sickness (encephalitis lethargica) of man is transmissible to horses, and *vice versa*. Workers of the U. S. Public Health Service and of the University of California are quoted to the effect (*Science News Letter*, July 26, 1941) that the horse may be the reservoir for both viruses.

THE NEWS

AVMA Activities

AVMA Called as Witness in Drug-Industry Investigation

Corollary to the nationwide investigation of the drug industry which has been carried on for the past 14 months by the U. S. Department of Justice, the Association was served with a *subpena duces tecum* on September 18, 1941, calling for it to appear as a witness on behalf of the government before the federal grand jury for the northern district of Illinois.

The subpoena calls for the submission of all records and documents relating to the "sales and distribution of veterinary medicines and supplies" for the period January 1, 1935, to date.

Iowa, Indiana Take Golf Tournament Honors

Thirty-five veterinarians from a dozen states turned out for the first AVMA golf tournament, held in connection with the annual convention at the Indianapolis Country Club, August 11. [See pictures on page 311.]

Iowa's golfing veterinarians instigated the competition by issuing a challenge to "beat the best in the nation." And they did, but not without a spirited battle.

At the end of 18 holes, Iowa and Indiana were tied for top honors and six extra holes had to be played before the Iowans emerged victorious. The winning team, each member of which received a trophy, comprised Bud Coe of Belmond, Ray Griffel of Eldora, Mike Grove of Sioux City and Karl Schalk of Iowa Falls. The Indiana team, runners-up, each of whom received a medal, comprised Wayne Alter of St. Paul, R. E. Blake of Anderson, C. O. Petry of Ossian and R. E. Speck of Anderson.

Other prizes were awarded as follows:

Low Medalist: R. E. Blake (80)—trophy.

Second Low Medalist: R. E. Speck (81)—medal.

Low Net: R. E. Blake (74) golf bag.

Low Net First Nine: R. E. Speck and Ray Griffel— $\frac{1}{2}$ doz. golf balls each.

Low Net Second Nine: Wayne Alter— $\frac{1}{2}$ doz. golf balls.

Most Pars: Ray Griffel (9)—rain suit.

Most Birdies: R. E. Blake (2)—duffle bag.

Blind Par: Carl Tucker, Cedar Rapids, Iowa—golf shirt.

Mystery Score: T. J. Hage, Monroe, Mich.—putter.

Low Gross First Nine: R. E. Speck and Ray Griffel— $\frac{1}{2}$ doz. golf balls each.

Low Gross Second Nine: R. E. Blake— $\frac{1}{2}$ doz. golf balls.

High Gross: Earl F. Hoover, Kansas City, Mo.—wood covers. WAYNE ALTER, Chairman, Golf Tournament Committee.

OPM Grants Priority Rating for Veterinary Supplies

Activities in behalf of the producers of veterinary supplies have induced the Office of Production Management to give priority listing to the matériel of applied veterinary science, particularly instruments and syringes.

Through communications directed to the Division of Priorities of the OPM by the Association's central office and other interested agencies, and principally through the interventions of Chief Mohler of the BAI, firms producing veterinary supplies now have a preference classification of A-10 under the Health Supplies Rating Plan—identical with medical and dental supply companies.

Commenting upon this development in national defense organization at a special meeting of the Board of Governors in Chicago, September 25, President Jakeman stated: "In this instance, just as in the question of deferment for veterinarians and veterinary students, favorable action has been secured, but not without considerable and extended effort. The fact that these actions were taken only after organized petitions had been registered shows, beyond any doubt, that without a strong national association to correlate their activities and champion their varied interests, veterinarians would exist only as individuals, not as a recognized profession."

Official Roster: Revisions and Additions

As published on pages 191-195 of the September 1941 issue, the official roster should be revised and added to as follows:

COMMITTEES

1) The personnel of the Committee on Resolutions should read:

Edward Records, Chairman, University of Nevada, Reno, Nev.

J. S. Barber, 560 Pleasant St., Pawtucket, R. I.

J. G. Hardenbergh, *Secretary, ex-officio*, 600 S. Michigan Ave., Chicago, Ill.

W. J. Butler, Capitol Station, Helena, Mont.

L. G. Clark, 3717 Beverly Blvd., Los Angeles, Calif.

C. R. Donham, Purdue University, Lafayette, Ind.

J. A. S. Millar, Box 318, Deal, N. J.

R. S. MacKellar, 329 W. 12th St., New York, N. Y.

2) R. W. Smith of N. Main St., Route 3, Laconia, N. H., replaces H. E. Curry on the special Committee on Interstate Shipment of Livestock by Truck; V. S. Larson of 950 Lake Court, Madison, Wis., is reappointed to that committee.

SECRETARIES

1) E. P. Johnson, Box 593, Blacksburg, Va., replaces A. J. Sipos as resident secretary for Virginia.

2) A. K. Gomez, College of Veterinary Science, Pandacan, Manila, is reappointed resident territorial secretary for the Philippine Islands.

3) Foreign corresponding secretaries omitted from the September listing, all of whom have been reappointed, are:

China: Ching Sheng Lo, c/o BAI, South Gate, Chengtu, Szechuan.

Scotland: A. W. Whitehouse, Glasgow Veterinary College, 83 Buccleuch St., Glasgow.

Union of South Africa: G. Martinaglia, Box 1620, Johannesburg, Transvaal.

St. Kitts: Ernest F. Jardine, Box 34, Basseterre.

Straits Settlements: Leonard L. Newman, Singapore Dairy Farm, Bukit Panjang, Singapore.

WOMEN'S AUXILIARY

The officers of the Women's Auxiliary should have been listed as follows:

Mrs. Wm. Moore, *President*, Raleigh, N. Car.

Mrs. Earl Moore, *1st Vice-President*, Morgantown, W. Va.

Mrs. C. D. Lowe, *2nd Vice-President*, Washington, D. C.

Mrs. Chas. D. Folse, *3rd Vice-President*, Kansas City, Mo.

Mrs. J. L. Axby, *4th Vice-President*, Indianapolis, Ind.

Mrs. Wm. H. Ivens, *Secretary-Treasurer*, Ardmore, Pa.

BASSHAM, HUGH A.

Quitman, Ga.

D.V.M., Alabama Polytechnic Institute, 1941.

Vouchers: E. S. Winters and F. P. Woolf.

BURDO, BEN S.

113 N. Main St., Centerville, Calif.

D.V.M., Kansas State College, 1937.

Vouchers: John M. King and R. E. Duckworth.

COOPER, BERT J.

Box 4, Clarksburg, Ind.

D.V.M., Indiana Veterinary College, 1915.

Vouchers: R. C. Julien and Frank H. Brown.

COOPER, HAROLD K.

Box 281, Roanoke, Va.

D.V.M., Cornell University, 1938.

Vouchers: Wm. A. Hagan and A. J. Sipos.

CRANFIELD, JOHN G.

718 El Camino Real, San Carlos, Calif.

D.V.M., State College of Washington, 1937.

Vouchers: J. K. Perry and John M. King.

LATTA, W. R.

Orangeburg, S. Car.

D.V.M., Indiana Veterinary College, 1912.

Vouchers: C. C. Donelson and W. A. Barnette.

MASTEN, C. A.

Coatesville, Ind.

D.V.M., Indiana Veterinary College, 1915.

Vouchers: C. C. Donelson and Edgar D. Wright.

MOHR, E. S.

P. O. Box 1311, Jackson, Miss.

D.V.M., Indiana Veterinary College, 1914.

Vouchers: J. L. Axby and Hartwell Robbins.

PHILLIPS, C. R.

540 Washington Pl., East St. Louis, Ill.

D.V.M., Alabama Polytechnic Institute, 1941.

Vouchers: E. S. Winters and E. H. Walker.

REISMAN, JEROME H.

Hillside Ave., Peekskill, N. Y.

D.V.M., Cornell University, 1938.

Vouchers: Wm. Hagan and C. E. Hayden.

ROSENBERG, SYDNEY

55 Elizabeth Ave., Newark, N. J.

V.M.D., University of Pennsylvania, 1937.

Vouchers: John J. Devine and M. L. Ziskind.

SCHRYVER, EUGENE M.

c/o Research and Antitoxin Laboratory, Otisville, N. Y.

D.V.S., New York-American Veterinary College, 1915.

Vouchers: J. J. Regan and J. G. Hardenbergh.

WILLIS, JAMES WM.

232½ W. Glenn, Auburn, Ala.

D.V.M., Alabama Polytechnic Institute, 1941.

Vouchers: W. E. Cotton and I. S. McAdory.

APPLICATIONS

First Listing*

BARRY, GEORGE H.

2528 Clement Ave., Alameda, Calif.

D.V.M., San Francisco Veterinary College, 1917.

Vouchers: Nelson E. Clemens and M. A. Northrup.

*See July 1941 issue, p. 74.

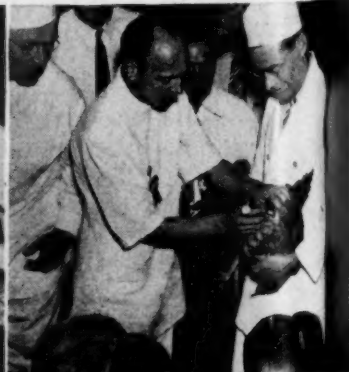
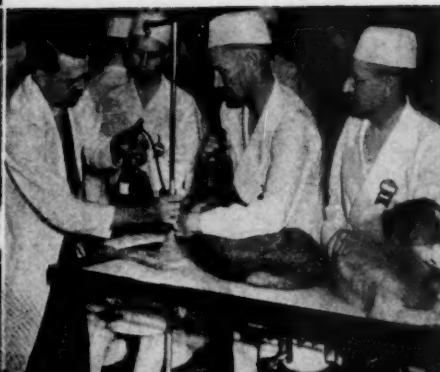
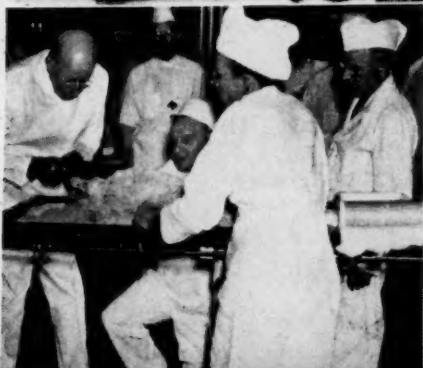
(Continued on page 312)

INDIANAPOLIS CLINICS

These pictures of the clinics held in connection with the seventy-eighth annual meeting are quite a contrast to the first one of these events, held at the Omaha meeting of 1898, where horses were the only subjects and the place was a dusty corral of a none-too-orderly livery stable. In justice to Omaha, however, the excellent clinic of the 1937 meeting at Ak-Sar-Ben has not been forgotten.

TOP TO BOTTOM, LEFT TO RIGHT:

- 1) E. W. Kline and P. T. Engard on handling and medication of sheep.
- 2) J. F. Bullard, Wayne Alter and C. J. Huffy on cesarean section in a sow.
- 3) Another view of the operation depicted above.
- 4) J. Mills, E. G. Pringle, J. O. R. Campbell and R. W. Dougherty (demonstrator) on physiologic bloat.
- 5) J. C. Flynn, W. G. Hunter (standing), H. J. Magrane, P. T. White and R. F. Bartlow on plastic surgery in a dog.
- 6) A. C. Merrick, H. W. Brown, F. R. Booth and W. G. Hunter on blood-transfusion technic in dogs.
- 7) R. O. Biltz on collection of semen for artificial insemination of poultry.



AVMA Holds Its First Golf Tournament



Top, the Indiana team, runners-up for the championship (left to right): C. O. Petry, R. E. Speck, Wayne Alter and R. E. Blake.

Right, the Iowa team, winners of the tournament (left to right): Karl Schalk, Mike Grove, Bud Coe and Ray Griffel.



Below, the contestants and the prizes.



The idea took root early last summer when Iowa challenged the nation's veterinarians to a contest to establish the "veterinary golf championship of America." Indiana veterinarians promptly accepted the challenge, and the local arrangements committee for the national convention named Wayne Alter of St. Paul, Ind., to direct the event. The tournament was staged at the Indianapolis Country Club, August 11, with 35 veterinarians from a dozen states participating. [Story on page 308.]

Second Listing

- Andree, G. W., Rensselaer, Ind.
 Ashman, Robert Irving Jr., Room 245, Building 714, Naval Air Station, Jacksonville, Fla.
 Beamer, Paul D., 29 W. Frambes Ave., Columbus, Ohio.
 Bloomquist, E. W., Veterinary Station Hosp., Fort Lewis, Wash.
 Bonham, P. O., Mooresville, Ind.
 Bowness, E. Rendle, Toronto Elevators Ltd., Queen's Quay, Toronto, Ont.
 Boydston, J. L., Wauseon, Ohio.
 Brown, Harold L., Pawling, N. Y.
 Burt, A. C., 201 Kent St., Simcoe, Ont.
 Campbell, A. R., Hensall, Ont.
 Campbell, Joe S., Route 4, Little Rock, Ark.
 Carnes, W. C., South Washington St., Shelbyville, Ill.
 Caswell, F. E., North Adams, Mich.
 Chalcraft, L. G., Grayville, Ill.
 Cleaver, Fred E., Avon, N. Y.
 Coxon, W. B., Zurich, Ont.
 Daley, Edward H., 1710 Indiana Ave., La Porte, Ind.
 Davis, H. J., Aylmer West, Ont.
 Dawe, L. T., Capac, Mich.
 Devereux, R. J., 154 Dalhousie St., Brantford, Ont.
 Dickinson, R. L., P. O. Box 78, Elizabeth City, N. Car.
 Dickson, J. T., Rockhill, S. Car.
 Engleberg, Louis J., 6380 W. Colfax, Denver, Colo.
 Fahlund, L. Alvin, 1524 Robinson Rd., Grand Rapids, Mich.
 Foster, Guy C., 351 W. Wiley St., Greenwood, Ind.
 France, Walker, Boonville, Ind.
 George, J. L., Chester, Neb.
 Gluhm, Frank N., 625 Prytania Ave., Hamilton, Ohio.
 Guthrie, James E., 814 Edgehill Ave., Ashland, Ohio.
 Hocker, M. R., Alexandria, Ind.
 Howard, C. T., Carlisle, Ind.
 Jones, W. E., Leesburg, Ohio.
 Karcher, Jim N., 516 University Ave. S.E., Minneapolis, Minn.
 Keith, George E., Plymouth, Ind.
 Kelly, Stephen R., 19233 Couyens Hwy., Detroit, Mich.
 Kettler, H. H., Milford Center, Ohio.
 Knott, G. K. L., 616 Mission Blvd., West Riverside, Calif.
 Linn, Adolph L., 1234 Pacific St., Brooklyn, N. Y.
 Long, L. E., Grenada, Miss.
 Lukens, William L., Veterinary Station Hosp., Fort Knox, Ky.
 Mackay, J. G., 183 Eglinton Ave. W., Toronto, Ont.
 MacLeod, A. H., Schomberg, Ont.
 Marlowe, Hilding M., 2415 S. Broad St., San Luis Obispo, Calif.
 Marquardt, S. J., Route No. 1, Monroeville, Ind.
 Martin, James R., Romney, Ind.
 Masker, A. A., Battle Ground, Ind.
 Melman, Harold, 1220 Holbrook Terrace N.E., Washington, D. C.
 Michael, Wm. R., Highland, Ill.
 Miller, Raleigh A., 414 S. 5th St., Richmond, Ind.
 Mumford, J. E., 62 Gothic Ave., Toronto, Ont.
 Murray, J. G., Ingersoll, Ont.
 Oldham, G. R., R.R. 3, Kokomo, Ind.
 O'Neill, John L., 114 W. Merry Ave., Bowling Green, Ohio.
 Pearce, Grace, X-Ray and Laboratory, State Hospital, Richmond, Ind.
 Pickett, Deets, 40 S. 7th St., Kansas City, Kan.
 Pinkney, R. J., Cooksville, Ont.
 Place, Charles B., 50 Horne St., Dover, N. H.
 Porteus, Robert, 512 Park Rd., Bellefontaine, Ohio.
 Rasmussen, Warren E., 4020 Harrison Blvd., Ogden, Utah.
 Redmon, J. T., 1422 N. Capitol Ave., Indianapolis, Ind.
 Rice, R. B., 418 E. North St., Kenton, Ohio.
 Riegel, R. C., 201 N. Mill St., Harrisburg, Ill.
 Ross, John W., 530 Randolph Court, Meadville, Pa.
 Routon, R. G., Camby, Ind.
 Rumney, Jean M., 61 King St. W., Hamilton, Ont.
 Sanders, C. C., 2134 Broadway, Indianapolis, Ind.
 Scruggs, J. H., 700 S. Crockett, Sherman, Texas.
 Smith, H. W., Napanee, Ont.
 Snyder, J. R., State Capitol, Lincoln, Neb.
 Steiner, E. S., Exeter, Ont.
 Stevenson, W. G., c/o Ayerst, McKenna & Harrison, Ltd., Room 506 McGill Bldg., Montreal, Que.
 Strous, Ralph H., Wolcott, Ind.
 Tennett, D. C., 348 Beresford Ave., Toronto, Ont.
 Theiss, Eugene W., 116 E. Maple, Independence, Mo.
 Timms, Walter H., Avon, Ill.
 Treat, E. K., Manchester Center, Vt.
 Waddell, William F., 1153 Alto Ave., S.E., Grand Rapids, Mich.
 Walcher, J. L., 322 S. Spruce St., Nokomis, Ill.
 White, C. B., Stanford, Ill.
 Wilson, C. P., Lock Box 113, Lawrence, Ind.
 Wolf, Chas. F., 1017 Washtenaw, Ypsilanti, Mich.

U. S. GOVERNMENT

Army Veterinary Service

Regular Army.—First Lieut. Harry J. Robertson is relieved from assignment and duty at Mitchel Field, N. Y., and from temporary duty at Fort Dix, N. J., effective on or about August 20, 1941, and assigned to the 208th general hospital, Fort Devens, Mass., for duty.

Colonel Jean R. Underwood is relieved from further assignment and duty in the Philippine department and will return to the United States on the first available Army transport or commercial liner for assignment to duty at Letterman general hospital, Presidio of San Francisco, Calif.

Veterinary Corps Reserve.—First Lieut. Clinton L. Gould, Fort Missoula, Mont., is ordered to extended active duty, effective August 27, 1941, and assigned to Bakersfield, Calif., for duty with the Air Corps basic flying school.

Major Norman J. Pyle is relieved from assignment and duty at Fort Sam Houston, Texas, and from temporary duty at the Army Medical Center, Washington, D. C., effective upon completion of his present course of instruction on or about September 1, 1941, and is assigned to duty at the Army Medical Center, Washington, D. C.

First Lieut. James G. Anderson is assigned to duty at the New York port of embarkation, Brooklyn, N. Y., effective upon completion of his present tour of foreign service in the Philippine department.

First Lieut. Clyde I. Boyer, Jr., is relieved from assignment and duty at the Army Medical Center, Washington, D. C., effective on or about September 15, 1941, and is assigned to the fifth corps area laboratory, Fort Benjamin Harrison, Ind., for duty.

First Lieut. Clement I. Angstrom is relieved from assignment and duty at Fort Monmouth, N. J., and is assigned to the pigeon breeding and training center at that station for duty.

Announcement is made of the promotion of the following Veterinary Corps Reserve officers, now on active duty, with date of rank indicated opposite their names:

To Major.—Captain Leo A. Hock, August 1, 1941.

To Captain.—First Lieut. Hugh D. Smith, July 31, 1941; First Lieut. Charles R. Wainright, August 18, 1941.

The following officers of the Veterinary Corps Reserve, now on extended active duty at the stations indicated, have been ordered to report to the commanding officer, Chicago quartermaster depot, Chicago, Ill., for temporary duty for a period of 30 days for the purpose of pursuing a course of instruction, commencing on

September 2, 1941, in the inspection of meat, meat-food and dairy products, under the depot veterinarian. Upon completion of this duty each of the officers (first lieutenants unless otherwise indicated) will return to his proper station:

Sidney L. Kaplan, Camp Edwards, Mass.

James A. Brennan, Madison Barracks, N. Y.

Robert O. Allen, Fort Ontario, N. Y.

Raymond B. Church, Fort Wadsworth, N. Y.

Guy F. Abell, Langley Field, Va.

Marion W. Scothorn, Carlisle Barracks, Pa.

Arthur N. Gorelick, Fort Eustis, Va.

George D. Batchelder, 28th QM (Refrig.) Co., Camp Livingston, La.

Robert L. Willis, Camp Stewart, Ga.

Paul E. Boyer, Fort Benj. Harrison, Ind.

Major Xenophon B. Shaffer, Fort Sheridan, Ill.

Warren Smeltzer, Chicago Quartermaster Depot, Chicago, Ill.

Charles W. DeLand, Chicago Quartermaster Depot, Chicago, Ill.

Clarence K. Bennett, Fort Logan, Colo.

Captain Robert N. Earhart, Kelly Field, Texas.

Ulysses S. McConnell, 448 S. Hill St., Los Angeles, Calif.

Richard D. Shuman, Presidio of San Francisco, Calif.

Wesley O. Keefer, Fort Benj. Harrison, Ind.

Joseph W. Harrison, Fort Ord, Calif.

George O. Thomas, Jr., 69th QM (Refrig.) Co., Camp Claiborne, La.

National Guard.—Announcement is made of the temporary promotion of the following National Guard officers, now on active duty, with date of rank indicated opposite their names:

To Colonel.—Lt. Colonel Lloyd M. Friedline, August 2, 1941.

To Lieutenant Colonel.—Major Loye J. Lauraine, July 31, 1941; Major Joseph M. Curry, August 2, 1941; Major Algernon H. Kerr, August 11, 1941.

BAI Transfers

Richard E. Baer from Baltimore, Md., to Augusta, Maine, on Bang's disease.

Lester C. Clark from Bismarck, N. Dak., to Chicago, Ill., on Bang's disease.

Philip S. McLaughlin from Omaha, Neb., to Austin, Minn., in charge of meat inspection.

Harvey E. Smith from Omaha, Neb., to Nampa, Idaho, in charge of meat inspection.

Retirements.—Frank O. Kickbusch, Milwaukee, Wis.; Philip F. R. Meyer, Fort Worth, Texas; John T. Shelton, Fort Branch, Ind.

Eichhorn Goes to England

Adolph Eichhorn, director of the Animal Disease Station of the U. S. Bureau of Animal Industry, Beltsville, Md., flew to England on the Clipper, September 7, to serve in the capacity of an adviser in the efforts to stamp out cattle diseases in that country. No other details about the assignment are now available. Before departing he was honored at a dinner given at the University of Maryland by the Rotary Club.

AMONG THE STATES

Arkansas

The central office of the AVMA is indebted to several members in Arkansas for calling attention to an item in the "Among the States" section of the September issue reporting a meeting in Little Rock, supposedly of the regular state association, but which the above-mentioned communications reveal to be an organization of non-graduates.

The source of the item was a clipping from a Little Rock newspaper and, inasmuch as the central office had not been apprised of the existence of a non-graduate society in Arkansas, the editorial staff was not in position to "blue pencil" the item.

California

When the Southern California association took box seats at the Los Angeles county fair to watch the races in lieu of holding their regular monthly meeting, several of the members not only lost faith in hot tips, but also in their knack of picking winners.

This annual event drew a record crowd as well as livestock exhibits in quality and quantity.

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Certain groups of stockmen and dairymen are incensed over the announcement that the new California veterinary college will be located at Berkeley instead of at Davis (quoting from the *Western Livestock Journal*), "where cattle, sheep and swine might be observed."

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Sixty veterinarians of southern California gathered at the Rostyn Hotel in Los Angeles, July 12, to celebrate the golden wedding anniversary of Dr. and Mrs. W. R. Carr. Dr. Carr is one of the pioneers of veterinary medicine in California, having located in Los Angeles 51 years ago following his graduation from the Ontario Veterinary College. He is still actively engaged in practice.

A similar celebration was held in honor of Dr. and Mrs. J. L. Tyler last year.

Canada

Veterinary Director General A. E. Cameron of the Health of Animals Division, Dominion Department of Agriculture, corrects the figures on tuberculosis eradication in that country as given on page 237 of the September 1941 issue. The number of cattle in the Dominion is 8,500,000, of which 1,723,330 are in accredited areas and over 46 per cent of the total are under supervision for tuberculosis. By the end of the fiscal year (March 31, 1942) one half of all Canadian cattle will have been tuberculin tested and under supervision.

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Saskatchewan Association.—The thirty-third annual meeting of the Veterinary Association of Saskatchewan was held on August 9 at the University of Saskatchewan.

The first order of business was an election of officers. Norman Wright of Saskatoon was chosen president; N. D. Christie of Regina, vice-president; L. L. Hewitt of Regina, registrar; and N. D. Christie, H. Richards of Indian Head and W. A. Robertson of Norquay, council members. Following, the group gathered at the Bessborough Hotel for luncheon.

A surgical clinic conducted by L. L. Hewitt occupied the afternoon. Dr. Hewitt demonstrated pre-operative sedation in small animals, completed by inhalation anesthesia; spinal anesthesia in the bovine species and a method of retaining the uterus or vagina after replacement; operation for cryptorchism in a pig; a method of giving a 10-cc. dose of subcutaneous vaccine intradermally as a one-injection vaccination against equine encephalomyelitis; and an inexpensive and efficient method of treating fractures in small animals.

NORMAN WRIGHT, *Past Registrar*.

District of Columbia

Quarterly Meeting.—The third quarterly session of the District of Columbia Veterinary Medical Association was held on July 22 at the Mayflower Hotel in Washington, with 115 veterinarians in attendance.

Major Norman Pyle spoke on "Canine Distemper: The Disease and Its Prevention," and a discussion of the subject followed. The session ended with a sound movie, just completed by the U. S. Bureau of Animal Industry, entitled "Swine and Avian Tuberculosis."

W. M. MOHLER, *Secretary*.

Georgia

Annual State Meeting.—Thomasville was the site of the annual meeting of the Georgia State Veterinary Association, July 16-17.

Out-of-state speakers were W. A. Barnette of Greenwood, S. Car., who spoke on cattle diseases; D. A. Eastman of Miami, Fla., who discussed canine diseases and conducted a

small animal clinic; and B. C. McLean of Aiken, S. Car., who presented a paper on lameness in horses and mules.

Swift and Company entertained the Association at a luncheon in their Thomasville plant. The banquet and dance was held at the Thomasville Country Club, with about 125 veterinarians, their wives and guests in attendance.

Officers elected for the ensuing year are S. F. Stapleton of Americus, president; Frank Carr of Cairo, vice-president; and J. M. Sutton of Sylvester, secretary-treasurer.

Idaho

Schneider Heads Idaho BAI.—Arthur P. Schneider (Wash. '38) succeeded Thomas A. Elliot (Wash. '12) as director of the Idaho bureau of animal industry on August 1. Dr. Elliot has returned to his practice at Lewiston. Dr. Schneider resigned his position with the U. S. Bureau of Animal Industry to accept the appointment.

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Swine erysipelas has been found in practically all counties of the state. Scabies in swine appears to be spreading. A large percentage of hog cholera in Idaho can be traced back to public sales rings. Equine encephalomyelitis has been light this year, but the number of vaccinations has been greater than usual.

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Brucellosis Conference.—September 8 and 9, a conference on brucellosis was held at Boise, with state and federal veterinarians from Washington, Oregon, Nevada, Utah and Montana attending. Elmer Lash, assistant chief of the Tuberculosis Eradication Division, U. S. Bureau of Animal Industry, presided at the session. All of the states reported satisfactory progress in controlling the disease.

A. K. KUTTLER, *Resident Sec'y.*

Illinois

The health exhibits of the Illinois state fair, held in Springfield in August, were an impressive demonstration of the state's health program, which has been brought into the foreground of public health services in recent years. Sound motion pictures, radio broadcasts (on the spot) and free blood-testing demonstrations were among the features. Bronze statues commemorating the work of Louis Pasteur and Edward Jenner decorated the entrance.

Iowa

East Central Iowa Society.—Forty-three veterinarians from 17 counties met at a dinner session in Cedar Rapids, September 11, where the technical program for the twenty-eighth annual meeting of the Eastern Iowa association,

October 7 and 8, was discussed by President Tyner and Secretary Elson of the latter organization. In addition, various subjects of current importance were presented:

J. B. Bryant, Intravenous Medication in Large Animals.

D. L. Proctor, Swine-Practice Problems.

J. C. Carey, Shipping Fever of Cattle.

J. W. Pirie, Equine Encephalomyelitis.

J. H. Spence, Practice-Law Violations.

C. E. Hunt, Calcium Chloride, Intravenously.

F. M. Wilson and others, The Indianapolis Meeting.

The present officers of the East Central Iowa society are Iva Dunn, president; L. W. Kellogg, vice-president; and Warren E. Bowstead, secretary-treasurer. The members of the program committee are C. H. Banks and J. J. Strandberg.

Minnesota

E. R. Gloss (Iowa '31) of Gaylord was appointed to the Minnesota livestock sanitary board in July to replace W. A. Anderson (K. C. V. C. '07) of Sleepy Eye, president of the board, whose term expired.

New Jersey

Semiannual State Meeting.—The fifty-seventh semiannual meeting of The Veterinary Medical Association of New Jersey was held at Asbury Park, July 10-11, with 125 members and guests in attendance.

The following literary program was presented during the two-day session:

The Practical Application of Udder Examinations of Cattle—L. J. Tompkins, Sheffield Farms Co., Inc., Wayne.

Hormones and Endocrines—S. M. Gordon, Endo Products, Inc., New York, N. Y.

Small Animal Practice—W. J. Lentz, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pa.

The Relation of the Practitioner to Regulatory Work—R. A. Hendershott, New Jersey Bureau of Animal Industry, Trenton.

Immunology—Frederick Boerner, Graduate Hospital, University of Pennsylvania, Philadelphia, Pa.

Nutrition in Horses—James Varley, E. R. Squibb & Sons, New Brunswick.

Radiology in Veterinary Science—M. A. Emmerson, School of Veterinary Medicine, University of Pennsylvania.

The Development of the Whiteside Test as a Method for the Diagnosis of Chronic Bovine Mastitis—James M. Murphy, Dairy Research Station, Sussex.

J. R. PORTEUS, *Secretary.*

New Mexico

An interesting fight is being waged in Albuquerque (as of August 1) over a meat-inspection

ordinance providing for a competent veterinarian as the inspector.

The politicians want the ordinance to read, "The inspector shall have such qualifications as the city manager may determine," while the junior chamber of commerce insists that the inspector shall be a graduate veterinarian, on the expressed ground that "we might as well have no meat inspection at all as one without a veterinarian in charge."

Rhode Island

State Veterinary Medicine Routed.—During the past six months the Rhode Island Veterinary Medical Association has made considerable progress in its fight to abolish state control of veterinary medicine.

For years Rhode Island had directed the immunizing of hogs through the office of the state veterinarian, preventing the practitioner from entering this field, but several months ago this regulation was abolished and the work turned over to practitioners, to whom it rightfully belongs.

Tentative plans of the Association are to have the practice act revised during the coming legislative session.

J. S. BARBER, *Resident Sec'y.*

Tennessee

A. C. Topmiller, state veterinarian under three governors, has resigned to enter private practice (*Nashville Tennessean*, Aug. 28). E. C. Kord has been named acting state veterinarian.

In commenting on the resignation, effective September 1, Commissioner of Agriculture Flanery said, "I regard him (Topmiller) as an outstanding veterinarian. There has been no falling out. I tried to dissuade him."

Washington

Director A. C. Cox of the Washington state department of agriculture named Mansel O. Barnes as state supervisor of dairy and livestock in July to succeed Marvin R. Hales, who resigned after 15 years of service in that department to engage in sheep raising on the newly irrigated land skirting the Columbia River. Dr. Barnes was formerly a BAI inspector on the force of J. C. Exline at Olympia.

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A common topic of conversation whenever Washington veterinarians meet is the new veterinary building, costing \$350,000, which is to house the staff and equipment of the School of Veterinary Medicine at the state college.

West Virginia

"Notwithstanding that Nicholas County has thousands of head of livestock and a human population of 24,000, it has no qualified veterinarian," says the *Richwood* (W. Va.) *Republican*, which goes on to point out [erroneously]

that "With the colleges turning out thousands of veterinarians annually, it would seem that Nicholas County should have at least one."

COMING MEETINGS

New York City, Veterinary Medical Association of. Hotel New Yorker, New York, N. Y. October 1, 1941.

Dallas-Fort Worth Veterinary Medical Society. Dallas, Texas. October 2, 1941. Frank Brundrett, secretary, 1809 Atwood, Route 2, Dallas, Texas.

Houston Veterinary Association. Houston, Texas. October 2, 1941. John Tom Kirby, secretary, 2421 S. Shepherd Drive, Houston, Texas.

St. Louis District Veterinary Medical Association. 7800 Olive St. Road, St. Louis, Mo. October 3, 1941. J. P. Torrey, secretary, 555 N. 14th St., East St. Louis, Ill.

Small Animal Hospital Association. Los Angeles, Calif. October 7, 1941. W. K. Riddell, secretary, 3233 W. Florence Ave., Los Angeles, Calif.

Eastern Iowa Veterinary Association. Hotel Montrose, Cedar Rapids, Iowa. October 7-8, 1941. R. E. Elson, secretary, Vinton, Iowa.

Maine Veterinary Medical Association. Lewiston, Maine. October 8, 1941. J. F. Witter, secretary, University of Maine, Orono, Maine.

Southeastern Michigan Veterinary Medical Association. Medical Arts Bldg., 3919 John R St., Detroit, Mich. October 8, 1941. F. D. Egan, secretary, 17422 Woodward Ave., Detroit, Mich.

Chicago Veterinary Medical Association. Hotel Sherman, Chicago, Ill. October 14, 1941. G. S. Elwood, secretary, 5449 Broadway, Chicago, Ill.

University of Illinois, Veterinary Conference. University of Illinois, Urbana, Ill. October 14-15, 1941. Robert Graham, chief in animal pathology and hygiene, University of Illinois, Urbana, Ill.

American Public Health Association. Convention Hall, Atlantic City, N. J. October 14-17, 1941. Further information may be obtained from the American Public Health Association, 1790 Broadway, New York, N. Y.

Southern California Veterinary Medical Association. Chamber of Commerce Bldg., Los Angeles, Calif. October 15, 1941. Charles Eastman, secretary, 725 S. Vancouver Ave., Los Angeles, Calif.

Purdue University Veterinary Short Course. Purdue University, Lafayette, Ind. October 15-17, 1941. C. R. Donham, chief veterinarian, Purdue University, Lafayette, Ind.

San Diego County Veterinary Medical Association. Zoological Research Bldg., Balboa Park, San Diego, Calif. October 20, 1941. Paul D. DeLay, secretary, State Poultry Pathological Laboratory, Balboa Park, San Diego, Calif.

Kansas City Veterinary Medical Association. Kansas City, Mo. October 21, 1941. Glen L. Dunlap, secretary, 800 Woodswether Road, Kansas City, Mo.

Keystone Veterinary Medical Association. School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pa. October 22, 1941. Raymond C. Snyder, corresponding secretary, University of Pennsylvania, Philadelphia, Pa.

Massachusetts Veterinary Association. Hotel Westminster, Boston, Mass. October 22, 1941. H. W. Jakeman, secretary, 44 Bromfield St., Boston, Mass.

Pennsylvania State Veterinary Medical Association. Harrisburg, Pa. October 23-24, 1941. Raymond C. Snyder, corresponding secretary, University of Pennsylvania, Philadelphia, Pa.

Southern Veterinary Medical Association and Florida Veterinary Medical Association (joint meeting). George Washington Hotel, Jacksonville, Fla. October 27-29, 1941. L. A. Mosher, secretary (SVMA), Box 1533, Atlanta, Ga.

Midwest Small Animal Association. Annual Clinic. Hotel Burlington, Burlington, Iowa. November 6, 1941. Wayne H. Riser, secretary, 17th and Ingersoll, Des Moines, Iowa.

Mississippi Valley Veterinary Medical Association. Hotel Custer, Galesburg, Ill. November 13-14, 1941. L. A. Gray, secretary, Bushnell, Ill.

American Association for the Advancement of Science. Dallas, Texas. December 29, 1941-January 3, 1942. (AVMA representative: Ward Giltner, Michigan State College, East Lansing, Mich.)

Arkansas, Mississippi and Tennessee associations (joint annual meeting). Memphis, Tenn. January 5-7, 1942. Communications should be addressed to John H. Gillmann, 769 Vance Ave., Memphis, Tenn.

PERSONAL NOTES

Births

To Dr. (Wash. '39) and Mrs. Philip A. Lee of Sacramento, Calif., a daughter, Linda Keith, May 21, 1941.

To Captain (Corn. '32) and Mrs. Mark Sternfels of New York, N. Y., a daughter, Susan Bette, September 2, 1941.

To Dr. (O.S.U. '39) and Mrs. Harold D. James of Washington, D. C., a son, Rodney-Reyburn, September 3, 1941.

DEATHS

G. A. Roberts of Ciudad Trujillo, Dominican Republic, died on August 24, 1941. [See obituary in editorial section of this issue.]

E. E. Peacock, 60, of the U. S. Bureau of Animal Industry, Dallas, Texas, died on August 21, 1941. He was a graduate of the St. Joseph Veterinary College, class of '10.

Sterling M. Reagan of Hillsboro, Ore., died on August 1, 1941.

Born at Mexico, Mo., in 1867, Dr. Reagan was graduated from the Kansas City Veterinary College in 1904. He practiced at Clay Center, Kan., until 1909, when he moved to Hillsboro. He was the first graduate veterinarian to practice in that town. Dr. Reagan retired from practice in 1929.

C. H. S.

G. A. Carey, 51, of Phillipsburg, Ohio, died in Indianapolis, Ind., August 13, 1941, while on his way to attend the AVMA convention.

Dr. Carey, a graduate of The Ohio State University, class of '12, left his home in Phillipsburg at about 6:30 on the morning of August 13 to drive to the meeting. When within only two squares of Murat Temple in Indianapolis, he suffered a heart attack and, apparently realizing the seriousness of his condition, drove to the curb and parked. His lifeless body, slumped over the steering wheel, was discovered by a pedestrian.

Walter E. Campbell of Bel Air, Md., died on September 2, 1941.

Born at Harrington, Kan., July 18, 1894, Dr. Campbell was graduated from the University of Pennsylvania in 1916. He served in World War I at Camp Shelby, Miss., and Fort Bliss, Texas, being discharged in 1919 with the rank of captain. He was a member of the Maryland state association, of which he was president for two terms, and also a member of the national association, having joined the latter in 1917.

C. L. E.

M. J. Dunleavy, 81, died suddenly at his office in Denver, Colo., August 12, 1941.

Although he was once one of the most prominent practitioners in this country, Dr. Dunleavy ended his professional career in 1925 to devote all of his time to the training and racing of Thoroughbreds, in which field he had developed a large clientele from coast to coast in addition to his practice in Denver. It is said that the winnings of his stable were over \$180,000.

Dr. Dunleavy was a graduate of the Chicago Veterinary College, class of '97.

Proceedings, Seventy-Eighth Annual Meeting American Veterinary Medical Association Indianapolis, Ind., August 11-15, 1941

Opening Ceremony

Tuesday Morning, August 12, 1941

The opening ceremony of the seventy-eighth annual meeting of the American Veterinary Medical Association was called to order at 10:15 a. m., in Murat Theatre, A. E. Wight presiding.

PRESIDENT WIGHT: The convention will please come to order.

First will be the invocation, for which I shall call upon Dr. Earl S. Hinkle. We will all rise.

DR. HINKLE: Our Father in Heaven, Thou who art the giver of all good and perfect gifts: We humbly bow before Thee to honor Thy holy name, acknowledging that Thou art God the Creator.

We come to Thee at this, the opening of the seventy-eighth assembly of the American Veterinary Medical Association with thankful hearts—thankful, our Father, for health and prosperity, and for this privilege which is ours of being in attendance at this assembly.

We thank Thee for this association, for its many fine accomplishments, for all those who have labored in the past in whatever capacity to make it a success.

Be with those, our Father, who will be chosen to carry this work on. Help them to put their best professional knowledge to work in their daily tasks, that even greater things be accomplished in the future.

Help us individually to realize our responsibility and to take our full share of this responsibility in making our profession of greater service to mankind.

We thank Thee, our Father, for those who planned and will be responsible for the carrying out of this program, for their fine coöperation, their willingness to give of their time and energy that those of us who are in attendance may enjoy to the full this week of fellowship.

Be with each one who shall have a part in this program, that whatever shall be said or done shall be in accord with Thy will.

May we all so conduct ourselves during this convention that we shall do honor to our profession.

These favors and blessings we ask through Christ, Thy only begotten Son, our Saviour. Amen.

PRESIDENT WIGHT: Please remain standing, and we shall all sing "The Star Spangled Banner."

... Singing of "Star Spangled Banner"; led by Cliff Carpenter; also "God Save the King."

PRESIDENT WIGHT: It gives me great pleasure at this time to introduce the speaker who will give us the Address of Welcome, the governor of Indiana, Honorable Henry F. Schricker. Governor Schricker.

GOVERNOR SCHRICKER: President Wight, Officers and Members of the American Veterinary Medical Association, Ladies of the Auxiliary, and Friends: I am very grateful for the honor that has come to me this morning to represent a great commonwealth in extending a word of welcome to the visitors assembled here from all sections of our great country and also from our beloved neighbor on the north.

I don't know of a finer opportunity that can come to any man than to say a word of greeting to those who are assembled for a definite purpose that has to do with a noble profession which has meant so much to the prosperity and well-being of our people. So, we greet you this morning in the name of a great state and a great people; greet you as benefactors, men and women who have labored throughout the years to improve the conditions of our people, from the standpoint of material things and also from the standpoint of health.

You have made your contribution in your time. Your association, coming to us for its seventy-eighth annual convention, is a strong testimonial of the fact that you have had leadership—men of vision and courage during all those years who have sought to improve, who have sought to uncover hidden secrets, who have sought to leave a mark upon Time for the period in which they served.

It is, therefore, a privilege to welcome you back once more to the capital of our state and to the state itself.

I am told that 29 years have elapsed since you honored us with a previous convention, and during those 29 years, which have marked rapid progress in all fields of human endeavor, you have kept abreast of the time. Great improvement has been wrought in the achievements of your profession. You are acquainted with facts today that you did not know 29 years ago. You are better acquainted to render that important service in animal husbandry, a widening field of opportunity and service, which not only adds to the prosperity and wealth of our people, but also has materially added to their health, their physical well-being and to the general improvement of human experience throughout the land.

I am not equipped to talk to you at great length upon matters that concern your profession. I am happy to tell you, however, that Indiana has tried to keep abreast of the times in your field, and we are proud of Dr. Axby, who has had a great deal to do with the success of this convention, who has received more honors at your hands in the past years, and

who has been a great leader in the veterinary field.

We feel that we, too, have made rapid progress here. Coöperating with the federal authorities, we have been able to carry on the tuberculosis-eradication work and the control of Bang's disease and other ailments which have threatened not only the prosperity of our people, but also the health as well.

We are proud of the record we have made in our great state.

I would like to say that in coming to Indiana we feel that you are coming to the very heart of the nation. We like to talk about Hoosier hospitality. We believe, somehow, that from the eastern seaboard many years ago, and from the south as well, came those stalwart men and women who were looking for the frontier, who had the courage and purpose to overcome the fight that confronted the pioneer in those early days. We believe that we have gathered all of the fine spirit that was woven into their character and purpose when they came, and have preserved it, and we wish to extend it to all visiting friends.

We like to brag a little at times about Indiana. I presume you all do that in your own states, and you have a right to do it. We don't say much about the weather—we leave that to California.

We sometimes love to talk about our poets, our musicians, our literary giants, our men of science and education—yes, sometimes we talk a little bit about politics in Indiana. We sometimes believe, when we get real serious, that the nation couldn't very well exist without a sprinkling of statesmanship from Hoosierdom.

Some years ago one of our distinguished predecessors, the late Thomas R. Marshall, who was later elevated to the vice-presidency, said that Indiana produced more first-class second-rate men than any other state in the Union. I think he meant, of course, in the field of statescraft and politics.

We take our politics seriously in Indiana, but at the same time we believe that after the fight is over, we can unite in all of the fine purposes of life and preserve the integrity and honor of the state.

This is a day of trial and tribulation, a day of sorrow and human disaster. We are not thinking much about politics in Indiana. We are concerned, deeply concerned, today, you and I, about the unity of our people. We are concerned about preserving democracy for our children. We are concerned about the challenge that has come to us in this day, whether or not we can prove to the world that democracy can withstand the assault of the dictator.

This is a great hour of trial, a testing time, for the political sanity of our people.

So, we feel in Indiana, we have been able to lay aside all of these petty differences that sometimes creep into our social fabric, in order to weld our thinking together and to build for whatever the challenge may be, meet it successfully and to prove for all time that democracy in America and in the world can work and preserve itself against whatever assault might appear.

This is important, more important than the business of your meeting, more important than other affairs of state. Almost daily and hourly we are confronted in my office with matters that concern the welfare of some 50,000 boys who have been called from Indiana alone—millions of our sons, concentrated in great camps to learn the arts of war and self-defense. But there are other great problems that have to do with equipment, shot and shell, and airplanes and bombers and battleships, and all of those things that go into that great program made so necessary by the conditions abroad.

We must prove in this hour, in this challenge, that we can unite, that we can lay aside our differences, that we can forget and bury selfish purposes, and think only of that great, important task that confronts the nation as a whole.

I have said on a good many occasions, and I repeat it here, that if for the next two years you and I can earn a decent living and provide our families with the necessities of life—and I mean only the bare necessities—and through that sacrifice still preserve the integrity of our nation, preserve all of the liberties we enjoy today, we will have made the finest and most important sacrifice in the history of our own generation.

We have tried in Indiana through the agencies of government to strengthen our own defense. Second only to the State of Connecticut, we are leaders in defense industry. Great industries have come to our state in the past few months, employing thousands of people, bringing a degree of temporary prosperity that we did not dream about twelve months ago. We are thinking today about the reaction, the impact that will follow when the day of peace arrives. Certainly, we will have other problems to challenge our capacity then. This is the day in which we should prepare to meet that challenge.

We went through an experience some ten years ago in which we employed all the power and agencies of federal government to solve a problem that threatened the economic future of our people. To my mind, that was only a Sunday School picnic compared with the problems that will confront us at the close of the present world war; the readjustment that will be necessary at that time, the need of comprehensive coöperation between the states and federal government, the willingness of everyone to make an individual contribution to survive that day which will be even more threatening to the freedom and liberties of our people than the present hour.

Your association will be important in all of this program. We realize its importance in the past—how you have contributed to the wealth of our nation, to the building of agriculture, to the strengthening of farm life and all that it means to the nation, to the great health program, which has challenged the best that is in us. You will also be called upon to make your contribution in the future. Your great organization, comprising nearly 7,000 earnest members, in itself speaks for unity and willingness to coöperate and move together. Hence, we look with great confidence to your leadership, to present that strength and that purpose that

will be so all-important in the testing days to come.

We like to organize in this country. We have encouraged organization in every fashion and in every form. This is an integral part of American social experience. It also has to do with the well-being and prosperity of our people. So, I congratulate you this morning upon your splendid, powerful organization; holding your strength for 78 consecutive years—stronger today than you have ever been before. Organization is necessary and important.

The great lesson, the hardest lesson to learn and to remember, is to recognize the rights of others. When we do that, we are able to work together and to unite for the future. This is all-important today, more important, perhaps, than at any other period in the century and a half of American history.

We need the conference table now more than we have ever needed it before. Labor, capital, the professions, agriculture, the teacher—all should have learned, or be willing to learn, to employ the council table where we might solve our problems in reason rather than in conflict that would threaten the peace of our own people.

You can play an important part in that program. Therefore, we trust that your convention will not only be profitable throughout the week from a professional standpoint, but that somehow you will receive courage here in this meeting to go back home to dedicate yourself to a program that transcends all of the things that you do in a professional way, has to do with the preservation of liberties here on this continent of ours, to build for a finer relationship with our neighbors to the north and to the south, that in the end the liberties of men might still be preserved and the threat of the dictator driven from the face of the earth.

I thank you.

PRESIDENT WIGHT: The response to that wonderful address will be given by our great friend from Canada, Dr. A. E. Cameron, Veterinary Director General, Health of Animals Division, Dominion Department of Agriculture, Ottawa, Ontario. Dr. Cameron.

DR. CAMERON: Mr. President, your Excellency, Ladies and Gentlemen: We are indeed honored by having the governor himself come to welcome our convention at this time. I believe that this is a recognition of the work of the veterinarian, and I would submit to you that it is of national importance. One can gauge the civilization of a country and estimate its progress by the care exercised over its domestic animals, and, in addition, the health of our livestock is intimately associated with the public health.

So, then, a meeting such as this is not without national significance. One feels somewhat diffident in speaking after the governor, for in spite of the popular fallacy that all men are equal, it is quite obvious that a governor is chosen by his people because he is an outstanding man. But we still hope that all men are equal under the law.

An Irishman leaving a socialist lecture once summed up his ideas on the equality of man

by saying, "Well, one man's as good as another. Aye, and a lot better."

As a Canadian, I deem it a great honor to be asked to reply to this address, especially when it has been given by the first citizen of this state. Under the stress of the times we are living in, this is of some interest, for the coöperation which is in effect between Canada and the United States, is, I think, an example to the whole world. One can only hope that it will be emulated by others when the disturbance at present underway has been brought to a successful conclusion.

When a great body such as the AVMA, which is composed of veterinarians from the whole of North America, meets in congenial surroundings, speaking a common language, a friendliness and understanding are induced which augurs well for the future. Under modern conditions it is becoming more evident how important human relations are and how great are the effects that men of good will may produce.

We are hoping to see as much as possible of this interesting city, and many of us will have an opportunity to see more of the whole state. No doubt some of us on our way home will be humming the tune, "I Can't Get Indiana Off My Mind."

But, of course, the great object in our meeting is to interchange scientific knowledge. New ideas of diagnosis and treatment will be exchanged, new methods of surgery will be demonstrated. The findings of research workers will be reported, and sanitary officials will have an opportunity to discuss their problems. In addition, we shall see all of the latest appliances, instruments and products brought together under convenient conditions. Here, then, is a great clearing house of information covering the whole of the activities of our profession.

This information and experience will be available for the common good, and if we are successful in our purpose, we shall be able to return to our respective spheres of work with new ideas, and be able to render more efficient service to our clients and their animals.

Also, we are looking forward to the entertainment which will be provided, and to meeting our fellow veterinarians. Here, then, is a most enticing prospect: work, play and the good will of our hosts.

Before I conclude, I would like to congratulate Indiana on her state veterinarian. Dr. Axby is a man eminent in his profession, and he is held in high repute by the AVMA.

Now, Governor Schricker, you have heard the applause of this audience, which demonstrates that we appreciate your remarks, but I would like to formally extend to you the thanks of the Association for your courtesy in coming here and for your interesting and delightful address.

PRESIDENT WIGHT: Thank you, Dr. Cameron. Next will be "Greetings from the Women's Auxiliary," given by Mrs. William Moore, Raleigh, North Carolina, president of that organization. I have pleasure in introducing Mrs. Moore.

MRS. MOORE: Honorable Governor, Mr. Presi-

dent, Ladies and Gentlemen: It is a real pleasure for me, as president of the Women's Auxiliary of the American Veterinary Medical Association, to extend greetings to each and every member attending this meeting. The fact that so many of you have come from your various homes all over the country is indicative of the interest that, I'm happy to say, seems to be characteristic of our organization. It has been a great privilege for me to head this organization during the past year, and I feel that no higher honor could have been bestowed upon me.

I am confident that no group of people anywhere work together with more harmony and spirit of coöperation than we do. I am equally confident that so long as this keen interest and hearty desire for active participation continue to exist, we can expect ever-increased success along those lines of endeavor which we undertake.

We each, of course, have our individual contribution to the veterinary profession. As a group, too, we do worthwhile things. For example, during the past scholastic year, the members of this auxiliary have helped nine senior students with loans amounting to nearly \$1,400. No doubt it would have been a hard struggle for some of these young men to complete their veterinary training without this aid. It goes without saying that we are proud to be able to render this assistance, and we hope that as the years go by, it will be possible for us to do a great deal more.

I wish to express appreciation to the local committee who have so thoughtfully provided every luxurious hospitality for our enjoyment at this meeting. I'm inclined to agree with Irvin S. Cobb, who said, "Indiana is the middle layer of perhaps the noblest slice of earthly cake." It has been delightful to have the opportunity of gathering here to renew old acquaintances and make new ones. I'm sure we will all remember Indiana and her good people most pleasantly.

PRESIDENT WIGHT: Thank you, Mrs. Moore.

At this time I wish to present a prominent veterinarian of Canada, Dr. J. E. Mumford.

DR. MUMFORD: Mr. Chairman, Ladies and Gentlemen: History shows that all humanity expresses its loyalty in some way or another. We are loyal to our respective religions, to our families and, in most cases, to our pet beliefs, and to our respective countries.

I find myself this morning in what my school geography book told me was a foreign country. How times must have changed since those books were written. I find myself surrounded by people who speak as I do, think as I do, and see the future very much as I do, too; and I may say, are animated very largely by the same loyalties.

Today as never before in our history, our two countries see eye to eye, and as I attend meetings in my own Canada, I observe a symbol of your national loyalty entwined with that of our own.

Our two flags are side by side, and we both know that they are side by side throughout the world, too, because both nations believe today

that in our close association lies the future freedom of us all.

The symbol of your national loyalty is your Stars and Stripes, ours the Union Jack. So, Mr. Chairman, as a symbol of that which is taking place all over the world, and so that we, too, may move with the times, I ask you on behalf of the Ontario Veterinary Association to accept for the AVMA this symbol of our devotion and friendship, this British flag, upon which the sun never sets—this Union Jack.

... The audience arose and applauded. ...

PRESIDENT WIGHT: Dr. Mumford, on behalf of the Association, I take great pleasure in accepting this gift of your wonderful flag.

We are honored this morning by the presence of a gentleman who represents the United States government, Mr. William G. Fitzgibbon, from the office of the United States Treasury, who is here to give us a few brief remarks regarding the National Defense Program. Mr. Fitzgibbon.

... Mr. Fitzgibbon delivered his prepared address. ...

PRESIDENT WIGHT: Mr. Fitzgibbon, you have given us a message of great value, and we thank you for being here today.

Now, we are getting along very well. I am certainly pleased at the progress we are making in the program. You will see something about the president and an address.

... President Wight read his prepared address [published in September 1941 issue, pp. 177-187]. ...

PRESIDENT WIGHT: Dr. Axby wishes to make a few announcements.

DR. AXBY: I am sorry to break into the program at this moment, but it is absolutely necessary that the ladies be informed relative to the luncheon.

... Announcements by Dr. Axby. ...

PRESIDENT WIGHT: I will now call upon Dr. I. E. Newsom, chairman of the Executive Board.

DR. NEWSOM: Dr. Wight, will you stand up here, please? We will not detain you any longer than is necessary. I hope that won't be very long.

The record of the United States Bureau of Animal Industry is the envy of all similar services throughout the world. The service rendered by that bureau is not excelled anywhere in the country.

Dr. Wight, having been head of two of the important divisions of that bureau, has assisted greatly in making the record which is so well held. It is only appropriate, therefore, on the basis of the work he has done in the Bureau, that he should have been elected president of this association, and it is also to be expected that he would have fulfilled the duties of his office as he has done in the past year.

This instrument that I hold in my hand is not only a certificate of proficiency, but one of esteem. Dr. Wight, we hope that the memory of your year's service will remain as vivid as it is at this moment, and with this certificate goes the good wishes of the veterinary profession throughout life. (Certificate presented.)

PRESIDENT WIGHT: I can hardly express my-

self, except to say that I appreciate this great honor.

DR. NEWSOM: Dr. Jakeman, will you stand over here, please?

No man in recent years has given more of his personal sacrifice and devotion to this organization than Dr. Jakeman. I wish I had the power to convey to this audience the knowledge that I have of the sacrifices he has made for the benefit of our organization. On many occasions he has sacrificed his personal affairs to go to the central office in Chicago to solve difficult problems, and he deserves major credit for the present smooth running of the Association and the high class of leadership which we now have.

It is in deep appreciation, then, of this service he has rendered that he was elected a president of this organization.

Now, keys have various interpretations. Mayors present keys of the city to guests as evidence of hospitality. The key to the situation helps us solve certain problems. There are said to be Seven Keys to Baldpate. This has no personal significance.

Dr. Jakeman, the interpretation of this key is that it is the key to the great heart of the veterinary profession, and that by it you may tap that flow of appreciation which wells up in all of us and which you so richly deserve.

I present it to you in the hope that during the next year your labor of service will be one of love and of pleasure.

DR. JAKEMAN: Dr. Newsom, Guests, Ladies and Gentlemen: In accepting the president's key, I do so with a keen sense of pride, pardonable pride, and pleasure. I do want to express my appreciation for the very kind remarks that you have made.

I realize this is one occasion where a president-elect is supposed to be seen and not heard. I will, therefore, merely say that I thank you.

DR. NEWSOM: There is still another presentation, as you will see by the program.

At the time of the International Veterinary Congress held in New York City, a considerable sum of money was raised in this country for proper entertainment of the delegates. Some of that money was not spent and the Congress turned it over to the American Veterinary Medical Association, the interest from which was to be used for an annual award for distinguished service in veterinary science and the livestock industry.

The award is presented at each annual convention. I am happy to announce that the committee has unanimously selected for the award this year, Dr. Adolph Eichhorn. Will he come to the platform?

DR. NEWSOM: I shall now read the citation that goes with the award.

"Dr. Adolph Eichhorn was born at Lipto Szt., Miklos, Hungary, May 27, 1875. He attended the Royal Veterinary College of Budapest in his native country from 1892 to 1895, when he emigrated to America. He entered the New York Veterinary College and graduated with the degree of Doctor of Veterinary Surgery in 1900. He became associated with the American Veterinary College, where he acted as assistant

surgeon in the hospital. His teaching career was continued as professor of infectious diseases and meat hygiene in the veterinary department of George Washington University in 1910-11 and New York University from 1917 to 1921.

"Dr. Eichhorn's most outstanding service was with the United States Bureau of Animal Industry, which he entered as a meat inspector March 25, 1901, was transferred to the Pathological Division May 1, 1906, and appointed chief bacteriologist in 1914 and chief of the division in 1915. In 1917, he resigned to become director of the veterinary department of Lederle Laboratories at Pearl River, N. Y., and reentered the Bureau 21 years later as director of the Animal Disease Station at Beltsville, Md.

"His career in the public service was marked by many contributions to veterinary literature, both here and abroad. In his earlier years his papers dealt with such subjects as tetanus antitoxin, foot-and-mouth disease, preparation of hog-cholera serum, glanders, Malta fever, dourine and hemorrhagic septicemia. Later he was concerned with blackleg filtrate, anthrax, canine distemper and, more especially, the production of a single-dose vaccine for rabies. He introduced into this country the Laidlaw-Dunkin method for the control of canine distemper. He is credited with instigating the work of Alice Evans which showed that Malta fever and contagious abortion are varieties of the same disease. He is also said to have been responsible for suggesting the relationship among canine distemper, swine influenza and human influenza viruses, which may yet lead to an efficient means of production of a vaccine for that widespread human malady.

"In collaboration with his distinguished colleague, Dr. John R. Mohler, he was responsible for the translation of Hutyr's and Marek's 'Special Pathology and Therapeutics,' Edelman's 'Meat Hygiene,' Ernst's 'Milk Hygiene,' and Malkmus' 'Clinical Diagnosis,' all of which were at one time or are now standard texts in our English-speaking veterinary colleges. He contributed the chapter on biological therapy in Winslow's 'Materia Medica' and chapters on glanders and foot-and-mouth disease for the 'Reference Handbook of Medical Science.'

"His ability to converse in almost every language made him popular throughout the world. He was director of the agricultural tour of Europe in 1912 and of the tours to the International Veterinary Congress in 1914, 1930, and 1938. He was chairman of the organization committee of the Twelfth International Veterinary Congress in New York City, in 1934, where his ability to speak directly with all visitors went far in making that meeting a great success. In his commercial work his numerous trips to foreign countries were always well received and his standing as a scientist is such that no suspicion was ever cast upon his statements.

"Throughout his professional life he has been a member of the AVMA, where he has served in many capacities, always with distinction. He holds honorary membership in many foreign veterinary organizations. He is a living example of the opportunity America gives to

young men of foreign birth and a consuming ambition. Friend, scholar, scientist, he is a world citizen and, as such, the appropriate recipient of the Twelfth International Veterinary Congress prize for scientific endeavor."

Dr. Eichhorn, I take pleasure in presenting you this certificate.

Dr. EICHHORN: Dr. Newsom, Ladies and Gentlemen: In my professional life of over 40 years, I have never been more overcome by any thrill comparable with the present one, that of receiving this very much coveted distinction, the highest honor which can be bestowed by the veterinary profession of this country upon any of its members. Realizing that my efforts in the professional line have always been directed towards the advancement of veterinary science and towards the better understanding and recognition of our profession, nevertheless I am also fully aware that there are many others in our profession who, through their meritorious and worthwhile efforts, are deserving of this honor.

It is presumed that in selecting the candidate for the award, consideration is given not only to the meritorious achievements, but also to some extent the age, because of future limitation of this recognition. I take it that the Association possibly had this in mind when they chose me for this year's recipient of the prize.

I feel that this occasion is opportune to emphasize especially the advantages of living in the true democracy, which accords to everyone equal rights and privileges in his chosen field of activity. Being of foreign birth, I perhaps can appreciate this tremendous advantage more than those who have been fortunate to receive it as their birthright. Having stepped ashore on this great country as an immigrant and having been accorded all the privileges of a native-born, I can not help but feel the deepest gratitude for my adopted country.

Looking back more than 40 years since I entered the veterinary profession, I have had the opportunity to observe the advancement of the profession practically from its pioneer days until the present, when it commands equal recognition with other professions of the many fields of activities which justly require our attention. I particularly desire to emphasize the scientific progress made in our efforts to control the many scourges which have ravaged our livestock in the past, and we may be proud of our achievements which, in many respects, have never been equaled in any part of the world. I particularly desire to mention the successful control of Texas fever, tuberculosis, dourine and glanders, which brought us well-deserved recognition.

We should also fully realize that there are many problems still confronting our profession and we should strive to continue our efforts toward solving them. Especially do I direct my remarks to our younger colleagues, who should realize that it will be through their efforts that progress will be continued for the good of our industry and for the benefit of mankind.

I can not refrain from paying tribute on this occasion to my friend, Dr. John R. Mohler, chief of the Bureau of Animal Industry, who since

the early days of my career has inspired me by his devotion to the profession and his constant aim for its advancement. It is to him I owe my greatest debt of gratitude.

Mr. President and ladies and gentlemen, I thank you from the bottom of my heart for this great honor, which I shall continue to cherish as the greatest recognition which can come to any member of our profession.

PRESIDENT WIGHT: Dr. Axby, have you any more announcements?

... Announcements by Dr. Axby...

... The session adjourned at 12:15 p. m. ...

First General Session

Tuesday Afternoon, August 12

The first general session was called to order at 1:40 p. m. in Murat Theatre, President Wight presiding.

PRESIDENT WIGHT: I will declare this first general session in order.

Unfortunately, Congressman Gillie is unable to be here today. We have a telegram from him saying that he will be unable to appear on the program as scheduled. He will, however, be on the program Thursday, at the second general session.

That brings us to the second number, and I know that everyone is looking forward to hearing from Colonel R. A. Kelser. So, at this time I take pleasure in calling on Colonel Kelser, who will speak on "Army Veterinary Service in the Defense Effort."

COLONEL KELSER: Mr. Chairman, Gentlemen: I would like to correct the title of this paper as it is given in the official program, reading "Army Veterinary Service in the Defense Effort." Leave off "Army" and the correct title is "Veterinary Service in the Defense Effort," because, as I will clearly indicate, the veterinary profession as a whole has a very important part in this great effort, and it is not limited to those of us in the military service.

... Colonel Kelser then presented his prepared paper. ...

PRESIDENT WIGHT: Thank you, Dr. Kelser. The next paper will be given by a gentleman well known to the profession, Dr. G. A. Roberts,* director of animal health in the Dominican Republic. Dr. Roberts.

... Dr. Roberts presented his prepared paper. ...

PRESIDENT WIGHT: We thank you very much, Dr. Roberts, for that splendid paper.

Our next paper will be by a man whom you all know. He is connected with poultry husbandry, and is now affiliated with Purdue University. I take pleasure in introducing Dr. J. Holmes Martin.

Dr. MARTIN: I have been highly honored by the members of your profession.

As Colonel Kelser was talking, I couldn't help but think it was 25 years ago when I

*[Dr. Roberts died aboard the S. S. Algonquin, August 24, 1941, enroute home from the convention. See page 302.]

spent the entire summer in the saddle in field artillery. One of my medical superior officers was a lieutenant in the veterinary service, Lieutenant Whitesell, who is now practicing veterinary medicine at Lafayette, Indiana.

Through the years since then, I have worked, of course, with the veterinarians of Purdue: our esteemed Dr. Craig, and then my association with Colonel Legge at the University of Kentucky; the regional research laboratory at the State College; and now again at Purdue.

I feel quite at home among veterinarians, although it is not my privilege to be one of them.

... Dr. Martin then presented his prepared paper, entitled "The Poultry Industry Needs the Veterinarian." ...

PRESIDENT WIGHT: Thank you, Dr. Martin. I know the audience appreciates that splendid paper.

I understand Dr. Axby has one or two announcements he would like to make at this time.

... Announcement by Dr. Axby. ...

PRESIDENT WIGHT: Now, we have a paper by Dr. O. W. Schalm, assistant professor in veterinary science, University of California, Berkeley, California.

O. W. SCHALM: Mr. President, Fellow Members and Guests: Many of you in general practice no doubt in recent months have been besieged by dairymen to introduce treatment of mastitis in their herds. This sudden interest in the treatment of this disease has been brought about by the fact that in various farm journals reviews of research work conducted at Pennsylvania have appeared, in which it was stated that now 88 per cent of the dairymen's infected cows can be cured.

I am not here to condemn or condone the method that has been used to bring to the attention of dairymen that the possibility of treatment of this disease exists.

We have been working on the treatment of mastitis since 1939, and I hope at this time to present in a general way some of our findings. The time is too limited to go into detail concerning the various methods of treatment in the various herds.

... Dr. Schalm read his prepared paper, entitled "The Treatment of Chronic Bovine Mastitis," and continued as follows:

This presentation may not be what you expected to hear, but it is practically impossible to demonstrate various methods of treatment. However, they are simple.

I hope that many of the general practitioners will now take an interest in the treatment of bovine mastitis, because it is going to be the means whereby this disease can be eradicated from dairy herds, providing the proper interest is shown by dairymen and veterinarians.

If the results we have obtained so far with novoxil will continue to hold up—although we have treated a very limited number, of course—it appears to me the injection of the dry udder with novoxil will be the most valuable means of eradicating dry udders, for it does not necessitate a great deal of equipment. The material comes to the veterinarian in a bottle, from which it is removed and injected into the ud-

der. I don't say this because of any keen interest in this material, but we have worked with the treatment of bovine mastitis since 1939 and have found that the disease will respond to this treatment. However, because sterile water and sterile glass equipment are required in the fusion apparatus, its introduction into the field has been somewhat hampered.

PRESIDENT WIGHT: Dr. Schalm, we are indebted to you for that splendid paper. I know that the general practitioners and everybody interested in mastitis will benefit from it.

That is the end of the papers on the program. If there are any questions that you would like to ask these gentlemen who spoke this afternoon—I don't believe we will have time for a discussion—the session is open to them.

The next item is nomination of officers. Before we get into that, I would like to ask Dr. Axby if he has any more announcements. Dr. Hardenbergh has an announcement to make.

... Announcement by Dr. Hardenbergh. ...

PRESIDENT WIGHT: Under the provisions of our new administrative by-laws, in regard to the election of officers, the first to be chosen is the president-elect. It is provided that the election of the president-elect shall be announced to the floor of the general session preceding the election.

... Dr. Hardenbergh read article III, section 1 of the administrative by-laws relating to the election of the president-elect. ...

PRESIDENT WIGHT: You have heard the reading of the rules. Nominations are in order.

T. A. SIGLER (Indiana): I wish to place in nomination a man who needs no introduction to the civilized world of veterinary science. He has traveled to every state in the Union and through England and France and Belgium, and has lectured in those countries. He is a graduate of the University of Connecticut, took his D.V.M. at Cornell University, spent two years at and holds a degree from Havana, Cuba, has spent more than a quarter of a century at the University of Kentucky, and has supervised the finest breeding farms of the world in the great Blue Grass State.

I wish to place the name of W. W. Dimock before this body for consideration on the merits of his sound judgment, executive ability and his many years of experience as a teacher, in practice and research.

S. L. STEWART: Mr. Chairman, I have a nomination to make.

I am from the State of Kansas, and I represent the Kansas Veterinary Medical Association in this nomination and all the veterinarians in the State of Kansas.

The man whom I am going to nominate all of you are acquainted with. He graduated from the Kansas City Veterinary College in 1918, went from there and served his country, came back to Topeka and established himself in general practice. He now specializes in small animal practice.

He has been a member of the American Veterinary Medical Association ever since he graduated, 23 years ago. He also has been a

member of the Kansas Veterinary Medical Association for 23 years. He is a member of the Kansas City Veterinary Medical Association, of the American Animal Hospital Association and of the American Society of Veterinary Therapy. He is an association man.

He has lectured on veterinary medicine at association meetings from north to south, and from the Atlantic Coast to the Pacific Coast. He is a man whom you all know and in whom you all put your trust. Being an association man, you could do no better than to vote for the man whom I now nominate, Dr. Charles W. Bower.

PRESIDENT WIGHT: Any further nominations?

R. A. HENDERSHOTT (New Jersey): I would like to second the nomination of Dr. W. W. Dimock of Lexington, Kentucky. For me to try to enlarge on any statements made by Dr. Sigler would be superfluous and simply usurping your time. I am quite certain all of us gathered here today have known this man for years and have known the sterling work he has done for the horse industry.

It is a pleasure and privilege for me to second this nomination.

HAMLET MOORE (Louisiana): Mr. President, I take great pleasure in seconding the nomination of Dr. Dimock.

I think that Dr. Sigler covered just a fraction of Dr. Dimock's merits. Dr. Dimock has been before this association for many years, and we owe him a great debt for the scientific teachings that he has given the veterinary world.

DR. COFFEY (president of the Kansas Veterinary Medical Association): I take pleasure in seconding the nomination of Dr. Bower for president-elect. Dr. Bower stands 100 per cent in Kansas veterinary medicine.

H. A. SEIDELL: I have been asked by the veterinarians of Iowa to second the nomination of Dr. Dimock of Lexington, Kentucky. I was one of those who was fortunate enough to have Dr. Dimock for instructor during my four years at Ames. All the student body spoke of him as "Pa" Dimock.

It gives me great pleasure to second the nomination of Dr. Dimock of Lexington.

JOHN GILLMANN (Tennessee): At our meeting last January I was instructed that if I came to the AVMA meeting and Dr. Dimock was nominated, I should second his nomination.

J. M. ARBURUA (California): I would like to second the nomination of Dr. Bower.

S. W. HAIGLER: Gentlemen, it is truly a pleasure and a privilege for me to second the nomination of Dr. Charlie Bower, as a neighbor. We veterinarians in Missouri wholeheartedly endorse his candidacy for the election of president-elect.

As members of the American Veterinary Medical Association, we know Dr. Bower has served long and faithfully in the affairs of the Association. We feel he is eminently qualified for the office to which he has been nominated.

Therefore, I again say, it is a pleasure to second the nomination of Dr. Charles Bower of Topeka, Kansas.

J. M. BROWN (Texas): Gentlemen, I have known Dr. Bower for a long time. He is interested in our organization. I first met him in St. Louis in 1922, and I have met him at nearly every meeting that I have ever attended. He has always been active in the work, and I want to take this pleasure in seconding the nomination of Dr. Bower as a representative in regard to the veterinarians from the State of Texas.

E. W. ROBINSON (Vermont): It is a pleasure for me to second the nomination of Dr. Charles Bower.

JOSEPH BARRER (Rhode Island): I take pleasure in seconding the nomination of Dr. Bower.

G. A. HAWTHORNE (Iowa): Dr. Bower, as I have been informed, has been very active in association work. He has been secretary of the Kansas association for quite a number of years. He is a practitioner. As a practicing veterinarian from Iowa, I want to second his nomination.

C. E. PALMER (Kentucky): I want to take this opportunity and privilege to second the nomination of our good friend, Dr. Dimock.

Being a practitioner associated with him for the past 22 years, I want to say he has been a great deal of help to the practitioners of the State of Kentucky as well as the other states.

J. C. FLYNN (Missouri): Mr. President, I have been a neighbor of Dr. Bower for a good many years. I knew him when he was going through school. I knew him when he got out in practice, and I have known him in association work. I meet him in numerous meetings all over the United States. Charlie Bower was honored with the secretaryship of the Kansas association 18 years ago, and is still secretary. He joined the AVMA 20 years ago, and he has not missed a meeting since then. He has served four years now on the Executive Board, and he is a faithful member. He has done much for veterinary science. He is a man who is a credit in every way to the Association and I endorse him as a candidate for president-elect.

ARTHUR J. KAY (Kentucky): It is my pleasure as a member of the Kentucky Veterinary Association to convey to this group the report that our association unanimously endorses the nomination of Dr. Dimock. He is a great help in our meetings. He is energetic, tactful, and his counsel is of great value. We feel he will make a grand president.

C. E. BASSLER (Iowa): I was originally a Kansas man. I have known Dr. Bower for a number of years. I have found him to be faithful to the duties of the Kansas association. As has been said, he has been secretary for a number of years and the continuance in that office speaks for the fidelity with which he will continue in any office for which he is chosen.

T. C. GUILFOIL (Illinois): I want, as a prac-

itioner, to endorse and second the nomination of Dr. Dimock as a practitioner.

J. C. CAREY (Iowa): I would like to second the nomination of Dr. Dimock. Dr. Dimock, as Dr. Seidell stated, spent several years in Iowa, and taught me at Iowa State College, and the veterinarians of Iowa learned to love him. We feel that he has contributed a great deal to veterinary science and that he deserves this nomination, and election as president-elect.

... It was moved and seconded that the nominations be closed ...

H. E. CURRY (Missouri): Mr. Chairman and Gentlemen: We sat here this morning and listened to impressive talks by the governor of this state, by the veterinary director general of Canada and by a representative of the Treasury Department at Washington, all of them calling our attention to what might be before us. They reminded us that we are confronted with a state of chaos, and where it will end nobody knows.

Gentlemen, in a time like this it seems to me that an association, convening in their seventy-eighth year, should carefully weigh the attributes of those whom they are going to select for their officers.

There has been placed in nomination here today a man whose work speaks for itself. You can travel over the country and mention breeding problems or sterility problems, and those who have livestock, who have kept abreast of the times, know of the work that has been carried on by Dr. Dimock.

Therefore, gentlemen, it affords me great pleasure to second the nomination of Dr. Dimock as one who possesses the qualifications, the high standing, the honor and integrity to guide this association through the path, whatever it may be, that confronts us from here on. Therefore, gentlemen of the assembly, I take great pleasure in seconding the nomination of Dr. Dimock of Kentucky.

PRESIDENT WIGHT: The motion was made and seconded that the nominations be closed.

All in favor say "aye"; contrary, "no."

... The motion was put to vote and was carried ...

PRESIDENT WIGHT: We shall proceed to the nomination of the vice-presidents. Under the provisions of the by-laws there are five vice-presidents. Now, I will accept nominations for first vice-president.

DR. FLYNN: Mr. Chairman, I would like to place in nomination the name of one of the old, faithful members of the AVMA. It is rare for him to miss a meeting. If he does miss one, it is because he is too ill to get there. He has worked faithfully, rather silently, and is possibly not as well known as many of the older

members, but he is a man whom we can depend upon to fill in at any time and any place. I place in nomination the name of Dr. S. E. Hershey of Charleston, West Virginia.

PRESIDENT WIGHT: Are there any more nominations for first vice-president?

Now, we are ready for nominations for second vice-president.

SECRETARY HARDENBERGH: Nominations for vice-presidents are carried out under the following procedure: If there are no more than five candidates nominated, the first becomes first vice-president, the second becomes second vice-president, etc. If more than five are nominated, a ballot election is necessary, and the ballot determines the order of precedence.

DR. BAKER: I would like to place in nomination for vice-president a man well known in the West, Dr. J. Traum. During the past six months I have had the opportunity of traveling around the western states and enjoying the hospitality of western veterinarians while attending their meetings. I found that Dr. Traum is respected by the profession. They all look to him for advice. I have previously spoken to some of the men from California here. Coming from the east as I do, it may not be appropriate, but, anyhow, I would like to nominate Dr. Traum.

C. P. ZEPP (New York): Mr. President, for vice-president I wish to place in nomination the name of a man who showed his ability and his conscientiousness during the past year at the Washington meeting. He acted as chairman of the Section on Small Animals. We all know the success of that particular section's meeting.

He has been a member of this organization for the past 20 years and is a graduate of the University of Pennsylvania. He organized the association, practically organized it at least, in the District of Columbia, has been actively taking part, seeing that that organization continues to function, and I think that he deserves recognition for the work he has been doing. I would like to place in nomination Dr. Mason Weadon of Washington, D. C.

MARK WELSH (Maryland): I would like to place in nomination the name of Dr. B. T. Simms. Dr. Simms became a member of this organization in 1915 and has never missed a meeting since that time.

He has been on numerous committees of this association. For 25 years he was a member of the veterinary division of the Oregon Agricultural Experiment Station, and is now head of the Regional Animal Disease Research Laboratory at Auburn, Alabama. I think Dr. Simms is sufficiently well known to all of us that he needs no further introduction.

A. E. CAMERON (Ontario): I would like to nominate Dr. Wm. Moynihan of Toronto. He is

capable of carrying out the duties of vice-president.

DR. FLYNN: I move that the nominations be closed.

... The motion was seconded . . .

PRESIDENT WIGHT: It has been moved and seconded that the nominations for vice-presidents be closed. All in favor say, "aye."

... The motion was put to vote and was carried . . .

PRESIDENT WIGHT: I am informed the procedure is to have a voice vote for these five men in the order that they appear on the blackboard.

DR. FLYNN: I think what is in order is a motion that the secretary cast the unanimous vote of this body for the five nominees.

PRESIDENT WIGHT: I will entertain a motion that the secretary cast the vote of the body for these five nominees.

DR. FLYNN: I should have, when I made the motion to close the nominations, included that the secretary cast the unanimous vote and declare them duly elected. That is the procedure.

... The motion was seconded by Dr. Spence of Clinton, Iowa, was put to vote and carried . . .

PRESIDENT WIGHT: We will proceed to have the secretary cast one vote for these five gentlemen.

SECRETARY HARDENBERGH: Mr. President, according to the instructions of the members, I hereby cast the unanimous ballot of this association for S. E. Hershey, first; J. Traum, second; Mason Weadon, third; B. T. Simms, fourth, and Wm. Moynihan fifth vice-president.

PRESIDENT WIGHT: Next is the election of the treasurer.

R. S. MACKELLAR (New York): It is not necessary to recapitulate the qualities of the present incumbent of the office of treasurer. He is known to every member. He has been treasurer so long that I forget how long it is. I, therefore, place in nomination the name of Dr. M. Jacob of Knoxville, Tennessee.

DR. WEADON: I second the motion. I move that the nominations be closed and that the secretary cast the ballot.

... The motion was put to vote and was carried . . .

SECRETARY HARDENBERGH: Mr. President, in accordance with the instructions of this motion, I hereby cast the unanimous ballot of the Association for Dr. M. Jacob as treasurer for the ensuing year.

PRESIDENT WIGHT: You are familiar with the fact that an election will be held for the office of president-elect, and it will have to be done by ballot. The polls will be open at 9:00 a. m. and close at 6:00 p. m., promptly, tomorrow.

That brings us to the end of our first general session, and I want to thank you and compliment you for your splendid attention.

... The meeting adjourned at 4:45 p. m.

Second General Session

Thursday Morning, August 14

The second general session was called to order at 9:15 a. m. in Murat Theatre, President Wight presiding.

PRESIDENT WIGHT: We will come to order, please.

First we will have an address by the winner of the Twelfth International Veterinary Congress prize, Dr. Eichhorn.

... Dr. Eichhorn presented his prepared paper, entitled "Our Present Concepts of Viruses." . . .

PRESIDENT WIGHT: Dr. Eichhorn, we are grateful for your excellent message on viruses.

Our next speaker is Dr. Thurman B. Rice, professor of bacteriology and public health at Indiana University, Bloomington, Indiana. He is also chief of the bureau of health and physical education, Indiana state board of health. His subject is "How Your Profession and Mine Can Work Together for the Common Good." Dr. Rice!

... Dr. Rice presented his prepared paper. . .

PRESIDENT WIGHT: Thank you, Dr. Rice. We are indeed happy to have you with us today.

At this time I welcome our good friend, Congressman George W. Gillie, who was to have been with us last Tuesday, but who was not able to do so on account of the pressure of his duties.

CONGRESSMAN GILLIE: Mr. Chairman, Distinguished Guests and Fellow Veterinarians: I was really disappointed in not being able to be with you last Tuesday, and to help open the exercises here in the State of Indiana for the American Veterinary Medical Association.

I take it for granted that you have all read an account of the historic event that took place in Washington just a few days ago. It was a historic event, I am sure; probably as historic as was the Neutrality Act that was passed a year ago.

I might dwell for just a moment or two on that. I think you will be interested in it. I know that there were thousands and thousands of people in the capital that day who were very much interested in it, and were not able to get into the galleries to hear the debates on this important bill, the extension of the draft.

It wasn't until after I left Pittsburgh that I learned of the outcome. I picked up a morning paper and I found that the vote was very close, so close, I am sure, that it made a lot of people very nervous in Washington.

There had been in the House that day both parties. Of course, the people for the bill and the people against the bill were making the rounds among the congressmen to find out how many votes they were going to be able to muster, and, as far as anyone could determine, it looked like the bill would be passed by probably 35 or 40 votes.

But to my surprise, when I saw the paper

the next morning, I learned it had passed by but one vote. Apparently, several congressmen changed their minds about the bill when they heard what the folks from "back home" had to say.

The debate from the floor was grand from both sides, and I consider it an honor to have been there and to have heard this debate, and I know that it will go down in history as one of the greatest days we have had within recent years.

... Congressman Gillie then presented his prepared paper. . .

PRESIDENT WIGHT: We thank you for this fine address.

... Announcements by Dr. Axby. . .

PRESIDENT WIGHT: I am going to ask Dr. Franks at this time if he is ready to announce the results of the balloting for president-elect.

Just before we go to that, I wish to call attention to a letter received yesterday from Dr. Torres, Rio de Janeiro, Brazil. Dr. Torres sends cordial greetings and suggests that the veterinarians of North America and South America could, through some central congress, benefit not only themselves, but could help a great deal in the complicated problems that exist in the animal kingdom as well as in the protection of human health.

... President Wight then read Dr. Torres' letter. . .

PRESIDENT WIGHT: Now, then, Dr. Franks. I want to express my appreciation for the work of the tellers in handling this election.

DR. FRANKS: Mr. Chairman, Ladies, Guests, Fellow Members: We, the members of the Board of Tellers, appointed to conduct the election of the president-elect, have complied with your instructions and report as follows:

A total of 626 ballots were cast, of which Dr. W. W. Dimock received 469 and Dr. C. W. Bower received 157.

Respectfully submitted by W. T. Oglesby, R. L. Anderes and C. C. Franks.

PRESIDENT WIGHT: Dr. Franks, you and your committee did a splendid job. That is the total.

We have two additional papers to be presented. At this time I call upon Dr. C. F. Huffman of East Lansing, Michigan, who is going to discuss "Some Nutritional Deficiencies of Cattle." This will be partly illustrated. Dr. Huffman.

... Dr. Huffman presented his prepared paper. . .

PRESIDENT WIGHT: Thanks a lot, Dr. Huffman.

The next and last on the program will be a paper by Dr. Ralph Hendershott, chief of the Bureau of Animal Industry at Trenton, New Jersey, on the subject, "The Change in the Blood Cells Induced in Tuberculous Cattle Through the Administration of Subcutaneous Tuberculin."

... Dr. Hendershott presented his prepared paper. . .

PRESIDENT WIGHT: Thank you, Dr. Hendershott. I hope it will be possible for other research workers to continue this branch of the work.

... The session adjourned at 12:30 p. m.

Closing Session

Thursday Evening, August 14

The final general session was called to order at 9:15 p. m., President Wight presiding.

PRESIDENT WIGHT: This session will please come to order.

SECRETARY HARDENBERGH: At the request of Dr. Weadon I want to make a statement about the work that we would like to do in publishing future editions of the directory.

About a year ago when the central office started the census of veterinarians, the members were asked to indicate the type of professional activity in which they were engaged, the intention being, when the new directory was published, to show opposite each name the member's line of activity.

When it came time to assemble the material for the 1941 directory, an effort was made to organize the census data that had been obtained. We found in that undertaking an almost insurmountable job, if we were to have a directory available even as early as the first of May, when it came out. In addition to that the census data returned to us were found to be inaccurate in many instances, because the men had not understood just exactly how to fill out the form; inasmuch as some specified several lines of activity, we could not undertake to interpret what they meant as their principal activity.

In addition to that, on account of the military activities, many men were changing their status, so, at the direction of the Board of Governors, we published only the names of the individual members, their addresses and their colleges.

We hope that in due time—but I don't think we should promise it for the next edition—we can insert in our directory the type of activity in which the individual members are engaged.

PRESIDENT WIGHT: You have heard that explanation. Is there any further business to come before this session?

If not, the installation of officers is in order. I would like to ask Dr. Jacob and Dr. Cotton to escort President-Elect Jakeman to the Chair.

... The audience arose and applauded. . .

Installation of Officers

PRESIDENT WIGHT: Dr. Jakeman, it is with the greatest pleasure that I pass the gavel of this association to you, knowing that it is going into the best of hands, to a man who has contributed much to our welfare. Dr. Jakeman, I wish you all success in handling the affairs of the Association as president.

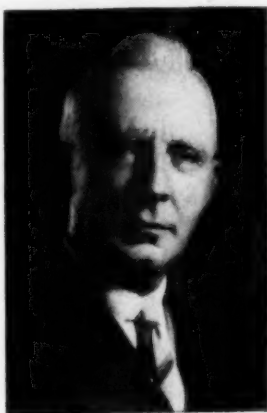
PRESIDENT-ELECT JAKEMAN: Thank you, Mr. President.

PRESIDENT WIGHT: I will now call for the new president-elect, Dr. Dimock.

... The audience arose and applauded. . .

PRESIDENT WIGHT: We will now have the first vice-president.

Dr. Hershey, please come forward.



M. Jacob, of Knoxville, Tenn., unanimously elected to serve as treasurer for the twenty-fourth consecutive year.

Dr. Traum is the second vice-president. He is not at this session.

The third is Dr. Weadon.

Fourth is Dr. Simms, who is not here.

Fifth, Dr. Moynihan.

Dr. Jacob, the treasurer.

Now, I will ask the new president to take charge.

PRESIDENT JAKEMAN: Gentlemen, be seated a minute, please. I am not going to keep you long.

I think it is most appropriate for us to extend to Dr. Wight our sincere congratulations for a most successful year. He has done a splendid job and I am sure we are all proud of the fact that the American Veterinary Medical Association has continued to show progress and has gone forward.

I sincerely trust that this coming year will be a successful one, and I pledge my most sincere and hardest efforts to make it one in the interests of the Association and the profession.

You will find in the September issue of the JOURNAL a list of the committees for the year and resident state secretary appointments. I hope that will be the sign to get off to a good start, and everybody will take his part in the AVMA seriously, that we will be united and give our best efforts to show that the veterinary profession is there in all defense efforts.

Now, if there is nothing further to come before this meeting, has anyone anything he wishes to bring up?

DR. FLYNN: Mr. Chairman, I would like to present you with seven new applications on your induction into office. I have them on my books.

PRESIDENT JAKEMAN: We are getting pretty close to the 7,000 mark in membership. I don't know exactly what it is.

How many members do we have?

SECRETARY HARDENBERGH: About 6,700.

PRESIDENT JAKEMAN: We are 6,700. We have to go over the 7,000 mark.

Now, if there is nothing further, I will declare the seventy-eighth convention of the American Veterinary Medical Association closed, *sine die*.

... The session adjourned at 9:30 p. m.

Section on General Practice

Wednesday, August 13

The first session of the Section on General Practice was called to order at 9:30 a. m. in Murat Theatre, Arnold H. Schmidt presiding.

CHAIRMAN SCHMIDT: Our program is rather lengthy. We have a large number of subjects, but they are all short papers. We have tried to give you short papers because we know that a long paper becomes monotonous. We are going to allow approximately ten minutes for discussion. When that ten minutes is up, I am going to cut off the speakers because I want to keep this on schedule if I can. If you have any questions to ask, please do so immediately after the paper is read. Don't hesitate. Don't be afraid to get up. Pop the questions right in and the gentleman who delivered the paper will try to answer them. If he can't, somebody else probably can help him out.

At this time we will have a paper on the "Physiologic and Metabolic Aspects of Acetonemia in Cattle" by a professor from the University of Minnesota, a biochemist who has done some interesting work on this subject.

At this time I will call on Dr. Martin H. Roepke to present his paper.

... Dr. Roepke presented his prepared paper. . .

CHAIRMAN SCHMIDT: Our next paper, "Acetonemia and Albuminuria in Dairy Cows," will be presented by Dr. John N. Campbell of Fairmont, Minnesota.

I will introduce Dr. Campbell at this time.

... Dr. Campbell presented his prepared paper. A discussion followed. . .

CHAIRMAN SCHMIDT: Our next paper will be "Internal Worm Parasites of Cattle in Northern Indiana." This subject will also be presented by a practitioner, Dr. C. Harvey Smith of Crown Point, Indiana.

... Dr. Smith presented his prepared paper. . .

CHAIRMAN SCHMIDT: We want to thank Dr. Smith for his paper. It is now open for discussion. Are there any questions?

If not, we will proceed with the next paper.

The gentleman presenting the next paper needs no introduction. He is one of the most prominent veterinarians in the United States. At this time I wish to present Dr. Cassius Way. His subject is "Some Observations Regarding Vitamin Requirements of Thoroughbreds in Training." His paper will apply to all types of horses.

... Dr. Way presented his prepared paper. A discussion followed. . .

CHAIRMAN SCHMIDT: We are supposed to nominate a chairman and secretary for this section for the coming year. The policy in the past has been to appoint a nominating committee. This committee will present the names about the middle of the afternoon. That does not prohibit nominations from the floor at that time.

At this time I will appoint a nominating committee and they can get together through the noon hour and tentatively pick a chairman and

secretary. This chairman and secretary are to be nominated by this group and appointed by the incoming president. I am appointing as the nominating committee Dr. Case, from Ohio, chairman, Dr. Walter Smith of Indiana, and Dr. W. S. Wilson of Minnesota.

We will proceed with the program now. The next paper to be presented is by Dr. E. A. Downs of Mount Sterling, Ohio, on "Anesthesia in Large Animals."

Dr. Downs.

... Dr. Downs presented his prepared paper. A discussion followed. . .

CHAIRMAN SCHMIDT: The next subject is "Keratitis in Cattle," by Dr. Vilo T. Rose of Elkton, Kentucky, a practitioner.

... Dr. Rose presented his prepared paper. A discussion followed. . .

... Announcements by Dr. Axby. . .

... The session adjourned at 12:15 p. m.

Afternoon Session

The afternoon session was called to order at 2:00 p. m., Arnold H. Schmidt presiding.

CHAIRMAN SCHMIDT: We will start the session now. The first paper to be presented is entitled "A Practitioner's Experience with Infectious Hemorrhagic Dysentery of Swine," by Dr. T. L. Steenerson of Wilkinson, Indiana. Dr. Steenerson.

DR. STEENERSON: Mr. Chairman, Members: In the presentation of my subject I wish to emphasize the fact that I am a large animal practitioner; hence, my remarks are directed to those engaged in swine practice and do not apply to research or theoretical ideas of those engaged in such work.

... Dr. Steenerson presented his prepared paper. A discussion followed. . .

CHAIRMAN SCHMIDT: At this time we will hear a paper on "Diseases of the Newborn in the Equine Species," by Dr. R. A. McIntosh of the Ontario Veterinary College at Guelph, Ontario.

DR. MCINTOSH: Mr. Chairman and gentlemen of the General Assembly: I'd like first to indicate to you my appreciation for having the privilege of appearing on this program. We in Canada appreciate you people very much and on occasions of this kind there are indications that you are appreciative of us, and we thank you for it.

Yesterday as I journeyed down through your states, I touched Michigan and I touched Indiana and also Ohio. Journeying through the country, I saw but very few horses and only one foal, so I wondered if my address wouldn't perhaps be a little bit futile.

I was very happy to hear Dr. Way this morning refer to the nutritional aspect of diseases or conditions occurring in horses. To a considerable extent it fits in with what I shall have to say of the diseases of the newborn.

... Dr. McIntosh read his prepared paper. At the close of the paper he continued as follows. . .

I feel that in so far as the diseases of the

newborn in the equine species are concerned, we must pay greater attention to the management and care and to the nutrition of the pregnant mother.

When I was a boy, we used to raise four or five or a half dozen foals every year at home on the farm. I look back on that time because of the fact that we lost only a few foals, and I have often tried to determine the reason for it. It seems to me that the methods that we adopted in the management and care of the mares and the handling and feeding of them were largely responsible for the fact that we seldom experienced losses.

Those pregnant mares were worked every day all winter long. We had plenty of teaming to do, and they were hitched up and driven just the same as the other animals—the non-pregnant animals. They were groomed and looked after and were fed well, and very often right up to the day they foaled. We seldom had any trouble.

You can't tell me that the infection didn't exist at that time, because I am sure it did. There must have been some reason for the difference and I am convinced that it was in those factors relative to management and care and feeding and nutrition.

CHAIRMAN SCHMIDT: I am sure you gentlemen enjoyed this paper, but inasmuch as time is getting short and I was just notified that we should get through here by five o'clock, if possible, we will have to omit the discussion.

The next paper will deal with "Some Phases of Sheep Practice and Husbandry," by Dr. Thomas P. Crispell of Parsons, Kansas.

... Dr. Crispell read his prepared paper. . .

CHAIRMAN SCHMIDT: In behalf of the Association, I want to thank the Doctor for his paper.

If there are any questions or discussions, we should have them now. If not, I will ask the committee I appointed this morning to make their report on nominations.

DR. WILSON: As acting chairman of the nominating committee, I place at your disposal at this time Dr. I. S. McAdory, of Alabama, for chairman; Dr. O. W. Schalm, of California, for secretary.

CHAIRMAN SCHMIDT: As I said this morning, these nominations will be placed before the incoming president and he will make the appointments. If anyone wishes to make a nomination from the floor, this is the time to do it.

If not, I will have the secretary forward these nominations to the incoming president.

The polls for the election of president-elect being held in the secretary's office will close at 6:00.

... Announcements . . .

The next paper will cover "Difficulties Encountered in General Practice," by Dr. C. F. Van de Sand of Kiel, Wisconsin.

... At the close of his paper, Dr. Van de Sand continued as follows:

In regard to the use of atropine sulfate in parturient paresis, that is not original with

me. It was used more than 25 years ago by Dr. Ferguson of Lake Geneva, Wis., with whom I was then associated.

In regard to the use of the Benesch fetotome, I have used one for many years, but since I wrote this paper I attended a meeting of the Southeastern Wisconsin Veterinary Medical Association, and through the courtesy of the Winthrop Chemical Company the men in charge of the program secured a moving picture of the use of the Benesch fetotome and I learned many different ways of using it.

This demonstration was given at the veterinary congress held in Europe some time ago, so anyone who has an opportunity to see that, be sure not to miss it.

On this winter diarrhea that is described, in my locality we have had quite a number of fatalities and I have had a number of cows die. It doesn't pass off so easily. This was described, as told by a man from the University of Pennsylvania, by Stephen, and I practice about 35 miles from where Stephen used to live.

I recall one bull that was sick. The owner came in the day before and got some testicle antiseptic. The next morning he called up and said I should come and see the bull as he was quite sick.

I made a rectal examination. He strained just a little and from him came a clot of blood about a foot and a half long and it filled the full diameter of the rectum.

In those cases, blood transfusions would perhaps be indicated.

... A discussion followed. . .

CHAIRMAN SCHMIDT: If there are no other questions, we will proceed to the next paper, which pertains to "Animal Casualties from Chemical Warfare Agents," by Captain Don L. Mace of the Veterinary Corps, United States Army, Edgewood Arsenal, Maryland, who is doing experimental work there.

... Colonel Kelser presented Captain Mace's paper. . .

COLONEL KELSER (continuing after close of paper): I might say, in closing this paper by Captain Mace, that largely as the result of Mace's efforts there has been developed for the American Army a very satisfactory type of horse gas mask, and at the present time studies are continuing with a view to the development of means of protecting the lower extremities against irritants and vesicants.

CHAIRMAN SCHMIDT: The paper presented has been very interesting. Before we go to the next paper, Mr. Shaffer of the AVMA editorial staff would like to make an announcement concerning the American Journal of Veterinary Research.

... Announcement . . .

CHAIRMAN SCHMIDT: The next subject will be discussed with slides. It will be presented by Dr. C. C. Hastings of Williamsville, Illinois, a practitioner, and for a good many years secretary of the Illinois association.

... Dr. Hastings presented his prepared paper. A discussion followed. . .

... The session adjourned at 5:30 p. m.

Section on Sanitary Science and Food Hygiene

Wednesday, August 13

The first session of the Section on Sanitary Science and Food Hygiene was called to order at 9:30 a. m., in the Candidates Room of Murat Theatre by Secretary W. T. Spencer.

SECRETARY SPENCER: Ladies and gentlemen, I think we will open the session. Our crowd is small, but it usually is when we first begin our program. We hope that by the time we get into the program, we will have a large number in attendance.

I am sorry to announce that our chairman, Dr. Starnes, is unable to be with us today. I had a telegram from him yesterday stating he would be unable to attend and asking that I convey his regrets to the members of the section. In his absence, I have asked Dr. Doyle, who is connected with the Veterinary Science Department of Purdue University, to take charge of the meeting this morning, and I am pleased to introduce to you at this time Dr. Doyle.

CHAIRMAN DOYLE: We have, as you notice, a number of important papers on the program. First, we have a paper on the subject "Veterinary Inspection of Meat, Meat Foods and Dairy Products Consumed by the Army," to be presented by Lt. Colonel Fred C. Waters, depot veterinarian, Chicago Quartermaster Depot, Chicago, Illinois.

I take pleasure in presenting Dr. Waters.

... Dr. Waters presented his prepared paper. A discussion followed. . .

CHAIRMAN DOYLE: The next paper was to be given by R. C. Ashby, professor of livestock marketing, University of Illinois. However, Dr. Ashby is unable to be present, and, therefore, the paper will be read by your secretary.

SECRETARY SPENCER: I am very sorry Dr. Ashby isn't able to deliver this paper in person. I have known him for years and he is probably one of the best men in the country on livestock problems.

... Secretary Spencer read Dr. Ashby's prepared paper. . .

CHAIRMAN DOYLE: We have had a paper on an important subject. The paper was well read. Perhaps someone would like to make an additional statement on this subject.

... There was no discussion. . .

CHAIRMAN DOYLE: We come, then, to the subject of "Livestock Transportation." This will be discussed by Mr. Lewis P. East, livestock traffic agent, Pennsylvania Railroad. I take pleasure in presenting Mr. East.

MR. EAST: Mr. Chairman, Ladies and Gentlemen: I don't know what a mere railroad representative can say to a group of veterinarians.

The work that the veterinarians have performed for the livestock industry is great and what we, as laymen, may have to contribute to it, I don't know. However, we are a factor be-

cause of the important part transportation plays in its welfare.

I don't know quite why I was selected for this particular discussion, unless it might be because of the fact that the railroads are interested in livestock problems and I happen to be chairman of an eastern committee of railroad representatives who have given some thought and some work to how we may better take care of livestock traffic—one of man's most important problems.

... Mr. East presented his prepared paper. A discussion followed. . .

CHAIRMAN DOYLE: Is there any other discussion? If not, we will proceed to the next paper on the program, by Edward N. Wentworth, director, Armour Live Stock Bureau, Union Stockyards, Chicago. Mr. Wentworth's paper is on "Factors Influencing Livestock Values."

... Mr. Wentworth presented his prepared paper. A discussion followed. . .

CHAIRMAN DOYLE: If there is no other discussion, the secretary has some announcements he wishes to make.

SECRETARY SPENCER: I want to say I think we have had an excellent program this morning. The papers that have been presented all have been unusually good and, I think, applicable and interesting to our group of people.

I want to thank each one for his participation in our program.

We have another interesting program this afternoon. There are four papers that I think are all of great interest to veterinarians and I hope that we will have a better attendance.

... Announcements. . .

... The session adjourned at 12:00. . .

Afternoon Session

The afternoon session of the Section on Sanitary Science and Food Hygiene was called to order at 1:30 p. m. in the Candidates Room of Murat Theatre by Secretary Spencer.

SECRETARY SPENCER: Ladies and gentlemen, I think we will get started. We are having difficulty, as we did this morning, in getting our crowd together.

Dr. Starnes' mother is quite ill and, as I said this morning, he was unable to come and we called on Dr. Doyle to fill in on the morning program as chairman. We are fortunate in having, this afternoon, Dr. E. S. Dickey, from Ottumwa, Iowa, veterinarian for John Morrell & Company, who is going to act as chairman.

Before I introduce Dr. Dickey, I have a few announcements.

... Announcements. . .

Now, I am going to introduce Dr. Dickey, who will take charge of the meeting.

CHAIRMAN DICKEY: Thank you, Mr. Secretary.

Some of you have already suggested that we had better not postpone the beginning of the meeting any longer.

The program has been changed just a little. Instead of Dr. Seidell of Des Moines appearing first, we are going to have a paper on "Single-Service Containers for Distribution of Fluid Milk," by J. Raymond Sanborn, in charge of

paper-sanitation research, New York Agricultural Experiment Station, Geneva, New York. Mr. Sanborn.

MR. SANBORN: Thank you, Mr. Chairman.

Members of the Association and Guests: It is a pleasure for me to be here this afternoon to attend the convention.

I want to extend the greetings of the New York State Agricultural Experiment Station and those of Dr. Breed and myself.

... Mr. Sanborn presented his prepared paper. A discussion followed. . .

CHAIRMAN DICKEY: The hour is getting late and I think we had better go on with the rest of the program. Our next paper is on the subject of "Veterinarians and Public Relations," by Harry J. Boyts, livestock commissioner, Sioux City, Iowa.

You know, we veterinarians are quite proud when somebody else besides a veterinarian espouses our cause and tells us about the work other people are doing. One such agency that does that is the National Livestock Loss Prevention Board, of which Professor H. R. Smith of Chicago is the head, and with which organization Mr. Boyts is associated. They early advocated that if tuberculosis were eradicated from the bovine population in certain counties, the meat packers could profitably offer 10 cents per hundredweight above the market price for hogs originating from these accredited counties.

Now, we have a gentleman here who has been a very good intermediary between livestock agencies and the veterinary profession. He has told the livestock industry the need of the veterinarian in such a convincing way that he has both pleased the livestock raisers and helped the veterinary profession put over his program.

The next paper we have, then, will be by Mr. Harry J. Boyts.

MR. BOYTS: Mr. Chairman and Friends: The program committee is really to be complimented upon selecting a number of livestock interests to appear on your program. The examples you have offered in this program of having different interests represented along with your veterinarians and technical men sort of opens up my talk, or paper here, on the "Veterinarian and Public Relations," because we do need to work together, as livestock interests, whether we are veterinarians or whatever we may represent.

... Mr. Boyts presented his prepared paper. . .

CHAIRMAN DICKEY: Thank you, Harry.

The talk you just heard Harry give is characteristic of him. He doesn't usually use gloves. He talks right to the point and when he mentioned those three classes of veterinarians, I want you to feel perfectly at ease. There weren't any of the first two classes here. All of us belong to the third class.

Now, those publications he gets out from time to time are informative, and Dr. Spencer gets out publications of the same sort at Omaha. It is interesting to read them and I am sure you will find a great deal of information in them, and timely information.

Perhaps some of you would like to ask Harry a few questions. There isn't a great deal of

time. Does anyone care to ask Harry a question?

If not, the next feature on our program happens to be the business session, that is, the nomination of officers—chairman and secretary. It is customary to do this by acclamation. Who will you have for chairman for the coming year? May we have a nomination and get this short part of the business program over quickly?

Leon G. Cloud of Fort Worth, Texas, was nominated and unanimously elected chairman. W. T. Spencer of Lincoln and Omaha, Neb., was nominated and unanimously elected secretary.

CHAIRMAN DICKEY: The next paper is entitled "Some Swine Problems," by Frank Breed, secretary and director of the biological department, Norden Laboratories, Lincoln, Nebraska.

Dr. Breed presented his prepared paper. A discussion followed.

CHAIRMAN DICKEY: There is a very important question that is facing all veterinarians in livestock sanitary work. That is the topic to be considered now. I am glad to present Dr. H. A. Seidell, state veterinarian of Iowa, who will talk on "Sales-Barn Problems."

Dr. Seidell presented his prepared paper. A discussion followed.

SECRETARY SPENCER: I want to thank those who have taken part in the program. I think it has been an excellent program.

I know I can speak for Dr. Cloud and myself when I say we are glad to be asked to take part in continuing a program of this type, or one better for the next session.

CHAIRMAN DICKEY: Is there anything further to come before the meeting?

SECRETARY SPENCER: There is nothing that I know of, unless someone has something to offer.

The session adjourned at 4:30 p. m.

Section on Research

Wednesday, August 13

The first session of the Section on Research was called to order at 9:00 a. m. in the Band Room of Murat Theatre, Frank Thorp, Jr., presiding.

CHAIRMAN THORP: It is now 9:00 a. m. We will declare the Section on Research in session.

The first paper is "Studies on Baby-Pig Mortality. II. Further Observations on Acute Hypoglycemia in Newly Born Pigs," by Drs. Sampson, Hester and Graham. Dr. Sampson will read the paper.

Dr. Jesse Sampson read the prepared paper. A discussion followed.

CHAIRMAN THORP: If it is agreeable with the group, in order to expedite the program we will jump over the next two papers for the time being. I am sorry we have to do that, but we have a full program and we must move along.

The next paper will be No. 4, "The Relationship Between the Blood and Whey Titers and the Occurrence of Brucella Abortus in the Udder," by Dr. Metzger and Freida R. Stokes,

New Jersey Agricultural Experiment Station, New Brunswick, New Jersey. Dr. Metzger will read the paper.

Dr. Metzger read his prepared paper. A discussion followed.

CHAIRMAN THORP: The next paper is No. 2, "Significance of Distemper Inclusion Bodies," by Dr. Wisnicky, of the University of Wisconsin, Madison, Wisconsin.

Dr. Wisnicky read his prepared paper. A discussion followed.

CHAIRMAN THORP: No. 3 is next, "The Relation of Leucemia and Bovine Lymphocytoma," by Drs. Thompson and Roderick, Kansas State College, Manhattan, Kansas. Dr. Thompson will present the paper.

Dr. Thompson read the prepared paper. A discussion followed.

CHAIRMAN THORP: The next paper is No. 5, "Tests on the in Vitro Neutralization of Hog-Cholera Virus with Hog-Cholera Antiserum," by Drs. Kernkamp and Roepke of the University of Minnesota.

Dr. Kernkamp will present the paper.

Dr. Kernkamp read the prepared paper. A discussion followed.

CHAIRMAN THORP: Mr. Shaffer of the AVMA editorial office is here. He was going to discuss the American Journal of Veterinary Research this afternoon at the business session, but he would like to have a few minutes of our time now, and then we will proceed with the program.

MR. SHAFFER: Thank you, Dr. Thorp.

I would like to take just a minute or two of your time to tell you something about the American Journal of Veterinary Research. I know that most of you men in the Section are familiar with it. Probably 25 per cent of you have had articles published in it. I want to say something about the idea behind it and tell you one or two of the problems we are facing in regard to its publication.

The AVMA is interested in furthering every branch of veterinary science and one of its objects, therefore, is to publish the worthy articles that are prepared by research men. To do that, the regular monthly journal no longer serves the purpose because 60 to 70 per cent of its readers are engaged in practice and, while research is, to be sure, basically beneficial to them, they want practical clinical material. For that reason, 60 to 70 per cent of the official journal is given over to articles of general veterinary interest.

This does not mean that the Journal of the AVMA does not publish research material. It does publish such articles, but it can give only a certain proportion of its body to that particular interest.

We founded the American Journal of Veterinary Research with the idea of creating an organ for research men in veterinary science whereby they can talk to other branches of science, to men engaged in every type and field of research.

From our own personal standpoint, we are not interested in it financially. We are not attempting to make a profit on it. All of the funds obtained from subscriptions, over and above a natural surplus we must have to op-

erate on a sound business basis, are going into its production.

Thank you very much, gentlemen.

CHAIRMAN THORP: There are a few announcements to be made.

... Announcements. ...

The next paper is No. 6, "The Stability of Reduced Virulence Exhibited by *Brucella Abortus Strain 19*," by Drs. Mingle, Manthei and Jasmin, Animal Disease Station, Beltsville, Maryland.

Dr. Mingle will present the paper.

... Dr. Mingle read the prepared paper. A discussion followed. ...

CHAIRMAN THORP: If there is no further discussion, this will end the program this morning.

Let me emphasize the necessity of being here promptly at 1:30, because we have a full program this afternoon and we have a business session that comes in the middle of it, at which time there will be several important things to discuss.

I will make these announcements again.

... Announcements. ...

CHAIRMAN THORP: We will adjourn now and meet in the same room at 1:30 this afternoon.

... The session adjourned at 12:30 p. m.

Afternoon Session

The second session of the Section on Research was called to order at 1:30 p. m. in the Band Room of Murat Theatre, Frank Thorp, Jr., presiding.

CHAIRMAN THORP: It is now 1:30. We will declare the Section on Research in session again.

The first paper this afternoon is No. 7, "Some Observations on the Control of Bovine Mastitis," by Drs. Pounden, Beach and Hastings of Madison, Wisconsin.

Dr. Pounden will present the paper.

... Dr. Pounden read the prepared paper. ...

CHAIRMAN THORP: This paper is now open for discussion. Are there any questions? If not, we will proceed with the program.

Paper No. 8 is next, "Studies on the Etiology and Pathology of Calf Pneumonia," by Drs. Thorp, Shigley and Farrell, Pennsylvania Agricultural Experiment Station, State College, Pennsylvania.

Dr. Thorp will read the paper.

... W. T. S. Thorp read the prepared paper. ...

CHAIRMAN THORP: The paper is open for discussion. Are there any questions? If not, we will proceed with the program.

No. 9 on the program calls for the business session. One of the things to be done is the nomination of officers, to help the incoming president select the chairman and secretary for next year. At the same time anyone may make a motion or propose resolutions regarding the conduct of this session, or regarding papers that are submitted by members of this particular group to the American Journal of Veterinary Research.

The first item on the list is the nomination of officers for the coming year.

This is an unwritten law, but I think we should keep in mind that the procedure of ro-

tation is a very fine thing. That doesn't leave an entirely new group to conduct the session for the coming year; not that they would not be capable of doing it, but, just as with a rotating board of directors, there is more continuity when you do not have an entirely new set of officers each year.

We will now declare the session open for nominations; first, the chairman, and second, the secretary.

DELEGATE: Mr. Chairman, I nominate Dr. Mingle for chairman.

... The nomination was seconded ...

CHAIRMAN THORP: The secretary will have to write his own name on the board.

It has been moved and seconded that Dr. Mingle be chairman for the coming year.

DR. EICHORN: I move nominations be closed.

CHAIRMAN THORP: It has been moved that nominations be closed. All those in favor, signify by saying "Aye."

Contrary, the same.

... The motion was carried ...

CHAIRMAN THORP: The motion is carried.

DR. EICHORN: In nominating the secretary, if that is in order now, I have in mind that we are to meet in San Francisco next year and it certainly would be appropriate to select someone from that locality to serve as one of the officers.

I take great pleasure in nominating Dr. Schalm, of Berkeley, California, who is here today, as secretary.

... The nomination was seconded ...

DR. BILLS: I move nominations be closed.

CHAIRMAN THORP: It has been moved nominations be closed. All those in favor signify by saying "Aye."

Contrary the same.

... The motion was carried ...

CHAIRMAN THORP: The motion is carried.

Dr. Mingle is the new chairman and Dr. Schalm is the secretary. The matter of officers has been taken care of.

Is there any business in the way of resolutions or motions or any discussions relative to the conduct of the session?

DR. METZGER: In the session last year we brought up and discussed the cost of reprints, as a result of which the prices have not been materially reduced. I have talked with two or three men since I was here this year who have had reason to pay for some of those reprints and we all agree they are still fairly high.

I move that this section go on record asking further consideration of the cost of reprints and asking that everything possible be done to reduce the cost of the same.

CHAIRMAN THORP: Then, too, the matter of binding the reprints, would you care to include that proposition in the motion? Maybe that adds a little expense and I think a good many of the members feel it is not necessary that they have a cover.

DR. METZGER: The rest of you have received reprints. Have they all come through bound this year, the ones from the American Journal of Veterinary Research?

DELEGATE: No.

DR. METZGER: I would be perfectly willing to have them come not bound if it would reduce the cost. I don't know whether that

should go into the motion or into the discussion. We can consider it on the record anyway.

CHAIRMAN THORP: If that would reduce at all the price of reprints, personally I see no reason why they should be bound. How do the rest of the members feel?

DR. SANDERS (Florida): I believe they quote them bound and unbound.

MR. METZGER: Maybe our publication office slipped.

CHAIRMAN THORP: Is there any further discussion on the matter of reprints? If not, are there any resolutions?

DR. EICHHORN: I think this is an opportune time for this body to express appreciation to the officers of this section, who have so commendably prepared the program and conducted the meeting. I move that we extend a vote of thanks to them.

DR. KERNKAMP: I will second the motion and act as chairman right now.

All those in favor of this motion made by Dr. Eichhorn will please signify by saying "Aye."

... The motion was carried ...

CHAIRMAN THORP: Are there any other resolutions or motions?

MR. LANGHAM (Michigan): I would like to bring up the matter of sending in papers to the research journal. In the last two or three instances I have not received galley proofs and I wondered if it wouldn't be possible to get galley proofs of our papers before publication.

CHAIRMAN THORP: You would like to go on record as favoring a resolution to the effect that the editorial office return galley proofs to the authors and let them have reasonable time in which they might have an opportunity to correct them?

That was discussed last year and put on record. I don't believe it has been carried out in each instance.

Does the group have anything to say regarding that? Does anyone wish to discuss it?

DR. THORP: I have had that question brought up to me, "Where is your galley proof? Doesn't the veterinary journal send a galley proof?"

DR. MOSKEY: Doesn't the American Journal of Veterinary Research send a galley proof before they actually print an article and give you at that time an opportunity to look it over?

CHAIRMAN THORP: I don't believe it has been consistently carried out. Others have had different experience. Apparently it is not uniformly carried out.

DR. HAY (Delaware): I received a galley proof with the return date just two days from the time I received the proof and I think that is too short a time to go over a paper of any length.

I would like to propose a resolution that we try to get a longer period of time in order to thoroughly go over the proofs.

CHAIRMAN THORP: How long would you suggest?

DR. HAY: I think that might vary in different cases. I think ten days to two weeks would be sufficient time.

CHAIRMAN THORP: You would like to sug-

gest a period of ten days to two weeks be allowed to go over the galley proof?

DR. HAY: Yes.

DR. MINGLE: I might state I have had an experience similar to that of Dr. Hay. I received a galley proof from the research journal, but the time was so limited that before I got it back, it came out in print, so I did not have an opportunity to edit it. I think Dr. Hay's suggestion is well taken.

CHAIRMAN THORP: Does anyone else care to discuss the question of galley proofs?

Do you wish to make that in the form of a motion, Mr. Langham and Dr. Hay?

MR. LANGHAM: I make a motion that the research group try to get galley proofs for the members when they send in a paper for publication.

... The motion was seconded ...

CHAIRMAN THORP: All those in favor of the motion, signify by saying "Aye."

... The motion was carried ...

CHAIRMAN THORP: The motion is carried. Dr. Hay, do you wish to make a motion?

DR. HAY: I move the editorial office give at least a week to ten days for the members to read their galley proofs.

... The motion was seconded ...

CHAIRMAN THORP: All those in favor, signify by saying "Aye."

... The motion was carried ...

CHAIRMAN THORP: The motion is carried. Is there any other business to come before the Section at this time? If not, we will proceed with the program.

CHAIRMAN THORP: No. 10 is the next paper, "Feeding as a Contributory Factor to the Development of Chronic Mastitis," by Drs. Moore, Henderson, Van Landingham and Weakley of the West Virginia Agricultural Experiment Station, Morgantown, West Virginia.

Dr. Moore will present the paper.

... Dr. Moore read the prepared paper. A discussion followed. ...

CHAIRMAN THORP: I have a few announcements to make.

... Announcements ...

We will proceed with the program. Paper No. 11 is "Some Observations on the Pathology of Pneumonia of the Food-Producing Animals," by Mr. Langham and Drs. Thorp and Ingle. Mr. Langham will present the paper.

... Mr. Langham read the prepared paper. A discussion followed. ...

CHAIRMAN THORP: Paper No. 12 is "Vitamin A Deficiencies in Ruminants," by Dr. Schmidt, Texas Agricultural Experiment Station, College Station, Texas.

Dr. Schmidt.

... Dr. Schmidt read his prepared paper. A discussion followed. ...

CHAIRMAN THORP: The next paper, No. 13, is "Sporadic Bovine Encephalomyelitis: Filtration of the Causal Agent," by Drs. Stearns and McNutt of Iowa State College, Ames, Iowa.

Dr. McNutt will present the paper.

... Dr. McNutt read the prepared paper. A discussion followed. ...

CHAIRMAN THORP: The next paper is No. 14, "Reindeer in Arctic Countries, Together with Observations on the Fertility of the Plains

Buffalo and Deer," by Dr. Seymour Hadwen, Ontario Research Foundation, Toronto, Ontario.

Is Dr. Hadwen here?

DR. KERNKAMP: Since Dr. Hadwen is not here, apparently his paper is not here. I suggest that it be read by title. I make a motion to that effect.

... The motion was seconded ...

CHAIRMAN THORP: All those in favor, signify by saying "Aye."

... The motion was carried. ...

CHAIRMAN THORP: The motion is carried. Dr. Hadwen's paper will be read by title.

CHAIRMAN THORP: This brings the session to a close. Does anyone have anything else to bring before this section before we adjourn? If not, I have a few announcements that I will read again.

... Announcements ...

Dr. Mingle, as secretary do you have anything to bring before the Section?

DR. MINGLE: I believe not. I think we have taken care of everything.

I would like to tell you that I appreciate the coöperation everyone has given us in presenting this program today. I appreciate all the courtesies that have been extended. It has been a pleasure to work with this group.

CHAIRMAN THORP: This ends my third year as an officer, two years as secretary and one as chairman, of this group. I can assure you that it has been a pleasure to serve. The members who have been associated with me have given their whole-hearted coöperation, as have the officers of the Association.

There are some things that have been initiated in this section and one thing in particular is the use of abstracts. The use of abstracts was rather an innovation in this section and it has been adopted now, I believe, by all of the sections. We consider it a distinct step forward and hope that it will be continued.

If the research section is to continue along its present standard and reach higher standards, we must continue to coöperate and we must also get behind our research journal.

We are judged by outsiders, I mean by persons in such organizations as the Society of Experimental Biology and Medicine, Biological Chemists Society, and American Bacteriologists, by the type of articles that we present here and publish in the American Journal of Veterinary Research.

I think we should pay more attention to the type of material that is presented before this section and also pay more attention to the editing of that material. In that respect I mean not only to correct errors in English which might creep in, but also some of the things that pertain to the history and the nature of the work that is being presented. Some of those things have crept in in the past and it is rather unfortunate that they have done so.

I hope that we will get a board of editors for our American Journal of Veterinary Research and that the future officers will dis-

criminate in the selection of the program material.

I thank you.

The meeting is adjourned.

... Adjournment at 4:30 p. m. ...

Section on Small Animals

Wednesday, August 13

The first session of the Section on Small Animals was called to order at 9:30 a. m. in the Egyptian Room of Murat Theatre, E. K. Sales presiding.

CHAIRMAN SALES: Gentlemen, if you will please come to order we will open up the Section on Small Animals with a talk by Dr. Mason Weadon on "Glaucoma." Dr. Weadon.

DR. WEADON: Mr. Chairman and Fellow Members: It is indeed a pleasure to be asked to present this paper, and an honor, and I wish you to know that I appreciate it.

The subject I have been asked to speak on is rather technical. However, I wish it to be understood that I am not an expert ophthalmologist. In fact, a fellow told me one time that an expert is a man who is away from home giving advice. Well, I am away from home all right. Last Monday I thought I was home, on account of the weather.

Really, I wish to say that this paper should be a discussion of a practitioner's experiences with glaucoma.

I was really forced into this because one of the nearby kennels had a dog whose puppies invariably showed up with glaucoma when they reached the age of 3 or 4 to five or six years. They were being brought to the office frequently and we were absolutely forced to find something to relieve the condition.

... Dr. Weadon presented his paper. A discussion followed. ...

CHAIRMAN SALES: We thank you very much, Doctor. Our next part of the program is a symposium on canine nutrition. Our first speaker will talk on the subject, "Biochemic Aspects of Canine Nutrition." Dr. C. M. McCay of Cornell University.

... Dr. McCay presented his prepared paper ...

CHAIRMAN SALES: Thank you, Dr. McCay. Dr. McCay's paper is to be discussed by Dr. M. L. Morris.

... Dr. Morris discussed Dr. McCay's paper ...

CHAIRMAN SALES: Is Dr. Beckman in the room?

I want to change the program just slightly at this point and appoint a nominating committee. I believe the by-laws require this, and the idea is for this committee to nominate two men for chairman of this section for next year, so that the president can appoint one or the other of them.

On that committee I would like to appoint Dr. C. P. Zepp of New York City as chairman, Dr. S. W. Haigler of St. Louis and Dr. A. R. Theobald of Cincinnati. We will have the report this afternoon.

At this time we will listen to Dr. L. H. La-

Fond discuss the subject of "Canine Nutrition from a Practitioner's Viewpoint." Dr. LaFond.

... Dr. LaFond continued the discussion ...

CHAIRMAN SALES: Thank you, Dr. LaFond. This subject will be discussed further by Dr. J. V. Lacroix.

... Dr. Lacroix continued the discussion ...

CHAIRMAN SALES: The meeting is now open for additional discussion of any of these nutritional problems. At this time, if you care to ask questions of any of the speakers, please announce your name and city and proceed to ask your question. Has anyone a question?

If there are no questions, the meeting is adjourned.

... The session adjourned at 11:40 a. m.

Afternoon Session

The afternoon session of the Section on Small Animals was called to order at 1:45 in the Egyptian Room of Murat Temple, E. K. Sales presiding.

CHAIRMAN SALES: Gentlemen, if you will give me your attention, we can proceed with the afternoon session. Our first number will be a talk on "Sanitation and Parasite Control in the Small Animal Hospital," by Dr. J. C. Wright of Atlanta, Georgia. Dr. Wright.

... Dr. Wright presented his prepared paper. A discussion followed ...

CHAIRMAN SALES: Are there any other questions? If not, I have several announcements to make at this time.

I have been asked to announce that the polls for the election of the president-elect are open in the secretary's office until 6:00 this evening and all members are urged to cast a ballot for president-elect.

... Announcements ...

Proceeding with the program, our next number is "Some Surgical Problems of the Canine Pelvis," by Dr. Otto Stader.

... Dr. Stader presented an informal talk illustrated with slides. A discussion followed ...

CHAIRMAN SALES: At this time we have just a few moments to take up a little business. This morning I appointed a nominating committee to recommend two men for chairman of this section and two men for secretary of this section for next year's meeting. The committee is composed of Dr. C. P. Zepp, chairman, Dr. A. R. Theobald, and Dr. S. W. Haigler. They have handed in the following recommendations, and I think I had better place them on the board.

For Chairman: Roy E. Nichols, Lafayette, Ind. E. R. Cushing, Plainfield, N. J.

For Secretary: Eugene Jones, Los Angeles, Cal. Oscar Krone, San Francisco.

Now, would anyone like to make any further nominations from the floor? If not, will someone make a motion that we accept the recommendations of the committee as read?

DR. HAMILTON (Muncie, Ind.): I so move you, that the nominations be closed.

... The motion was regularly seconded, put to a vote and carried ...

CHAIRMAN SALES: These names will be presented to the president in accordance with the by-laws.

Is there any further business that anyone would like to suggest? I believe that is all that is required.

We will go on with the program. Our next number is a paper on "Plastic Surgery" by Dr. J. C. Flynn. He needs no further introduction. Dr. Flynn.

DR. FLYNN (Kansas City, Mo.): Mr. Chairman and Members: I feel somewhat at home coming back here into this section, because I believe that I had possibly as much to do with the organization of this section as anyone, quite some time ago, and I believe this section has possibly the distinction of having held the first animal clinic within the walls of a hotel. It was in St. Louis and when that request was made, the hotel proprietor held up his hands in holy horror. He said it was never heard of and added, "If I would bring animals in my hotel, my guests would leave." I said, "If you don't bring them into the hotel there will be at least 400 veterinarians who will leave." Consequently, we won our point.

... Dr. Flynn continued, reading his prepared paper. A discussion followed ...

CHAIRMAN SALES: Our next paper is on the subject "Canine Encephalitis and Post-Encephalitis," by Dr. C. Herman Beckman of St. Louis, Missouri.

... Dr. Beckman presented his paper, illustrated with slides. A discussion followed ...

CHAIRMAN SALES: Any further questions? If not, I believe that completes the program.

... The session adjourned at 5:30 p. m.

Section on Poultry

Wednesday, August 13

The first session of the Section on Poultry was called to order at 9:45 a. m. in the third floor room of Murat Theatre, C. A. Brandly presiding.

CHAIRMAN BRANDLY: The meeting will come to order.

The agreement in this section as well as in the research section made at past meetings was that papers be limited to 20 minutes, plus five minutes for discussion. We will give a warning of two minutes by two knocks on the table. We expect only one paper to require longer than 20 minutes and we will allow for that and give the two-minute signal at about 23 minutes. If you do take a little bit longer time than that, I don't think we will be crowded, although we are starting late this morning.

Without any other preliminaries, we will have the first paper, "Paratyphoid Infection in Quail," by Charles H. Cunningham, assistant professor and veterinary inspector, in charge of laboratory, Maryland State Board of Agriculture, Live Stock Sanitary Service Laboratory, University of Maryland, Centreville, Maryland. Dr. Cunningham.

... Dr. Cunningham read his prepared paper. ...

CHAIRMAN BRANDLY: Thank you, Dr. Cunningham. The paper is open for discussion. I would like to mention that when you do get up to discuss, please mention your name, and

when you finish your papers, please turn them in to Dr. Beaudette.

Any discussion?

The next paper is "A Review of 3,000 Autopsies," by E. R. Quortrup, Fish and Wildlife Service, United States Department of the Interior, Brigham, Utah, and J. E. Shillinger, Fish and Wildlife Service, Washington, D. C. Dr. Shillinger will give the paper.

... Dr. Shillinger presented the prepared paper, illustrated with slides. A discussion followed. . .

CHAIRMAN BRANDLY: Are there any further questions or discussions?

Before we proceed with the next paper, Mr. Shaffer of the AVMA office wants to make an announcement.

... Mr. Shaffer then made an announcement concerning the American Journal of Veterinary Research. . .

CHAIRMAN BRANDLY: The next paper is "The Use of Vinylite Resin Corrosion Preparations to Study the Organs of the Domestic Fowl Affected with the Avian Leucosis Complex," by G. E. Cottral, United States Regional Poultry Research Laboratory, East Lansing, Michigan.

... Dr. Cottral presented his prepared paper. A discussion followed. . .

CHAIRMAN BRANDLY: The next paper, "Serial Passage of Strain 3, Lymphomatosis-Osteopetrosis in Chickens," by me and N. M. Nelson, and G. E. Cottral, United States Regional Poultry Research Laboratory, East Lansing, Michigan. Dr. Nelson had anticipated presenting the paper, but he is unable to be here, so it falls to my lot.

... Dr. Brandly presented the prepared paper. A discussion followed. . .

CHAIRMAN BRANDLY: The next paper, "Transmission of Avian Encephalomyelitis," by H. Van Roekel, chief of laboratory, K. L. Bullis, assistant veterinary pathologist, and Miriam K. Clarke, research assistant, Department of Veterinary Science, Massachusetts State College, Amherst, Massachusetts.

... Dr. Van Roekel presented the prepared paper. A discussion followed. . .

CHAIRMAN BRANDLY: This afternoon the program is scheduled to start at 1:30, and I think the fact that we have seven papers and a business meeting should indicate to us that we should be here promptly at 1:30 so that we can begin on time.

... The session adjourned at 12:15 p. m.

Afternoon Session

The afternoon session was called to order at 1:45 p. m., C. A. Brandly presiding.

CHAIRMAN BRANDLY: The meeting will come to order. The first paper is "Salmonella Infections of Breeding Turkeys," by B. S. Pomeroy, assistant in charge, and R. Fenstermacher, veterinarian in charge, Division of Veterinary Medicine, University Farm, St. Paul, Minnesota. Dr. Fenstermacher.

... Dr. R. Fenstermacher presented the prepared paper. A discussion followed. . .

CHAIRMAN BRANDLY: The next paper, "The Present Status of Avian Encephalomyelitis," by

Erwin Jungherr, professor of animal diseases, and Edwin L. Minard, instructor of animal diseases, Department of Animal Diseases, University of Connecticut, Storrs, Connecticut.

... Dr. Jungherr presented the prepared paper.

CHAIRMAN BRANDLY: Any discussion? We have only a few minutes because we are running behind schedule.

... Announcement by Dr. Tucker concerning the clinic. . .

CHAIRMAN BRANDLY: Discussion on Dr. Jungherr's paper? If not, the next item is the business session. As regards the nomination of officers, a recommendation was made several years ago that officers be nominated by each section, one and not more than two for each office, to guide the president in his appointment of officers for the section. If I am not right on that, I want to be corrected. Consequently, the nomination of officers is to be made at this time. First, the chairman—are there any nominations?

DR. DURANT: Mr. Chairman, in view of the splendid program we have had so far—and I don't think we will be like the man who fell out of the seven-story window, and as he passed the fourth story, said, "I am all right so far"—I think we couldn't go wrong if we would nominate for chairman our good secretary, Dr. Beaudette. I would like to place his name as one.

CHAIRMAN BRANDLY: Any other nominations? If not, may we have a motion that the nominations be closed.

... Dr. Stafseth moved that the nominations be closed. The motion was duly seconded, was put to vote and carried. . .

CHAIRMAN BRANDLY: The nominations for secretary. Remember, these are to be nominations of two persons or one.

DR. STAFSETH: In view of the fact that the meeting will be on the West Coast, I believe we should have a secretary from the Coast. I nominate Dr. J. R. Beach.

CHAIRMAN BRANDLY: Any other nominations?

DR. DURANT: I don't know if there is a law against any one nominating two members or not. I would like to see Dr. Dickinson nominated as secretary. I agree with Dr. Stafseth that we ought to have a secretary from the West Coast, since the meeting is to be over there, and I would like to place the name of Dr. Dickinson.

CHAIRMAN BRANDLY: Are there any other nominations?

... Dr. Cottral moved that the nominations be closed. The motion was seconded by Dr. Stafseth, was put to vote and was carried. . .

CHAIRMAN BRANDLY: Those names will be passed on to the incoming president for his action. Is there further business to come before this session at this time?

DR. JOHNSON: Last year or the year before there was considerable talk about the price of reprints in the AVMA journal and the new journal, the American Journal of Veterinary Research, being excessively high, and the re-

search section mentioned that we should have a resolution to lower the price of reprints. In addition to that, it has been mentioned, and I agree with it, that the members should be given the galley proof of their articles. I note that for the last few years galley proofs usually have not been sent. One finds his paper in print without having had a chance to correct it.

I wish to offer that as a resolution, that we see that in passing a resolution that those things be taken into consideration.

CHAIRMAN BRANDLY: I think the resolution is in order. Any of you who didn't get to hear the gist of the resolution? May we have a motion that the resolution be made by the Section and presented for proper consideration?

DR. JOHNSON: I make that as a motion.

DR. HEARST: I second the motion.

... The motion was put to vote and carried.

CHAIRMAN BRANDLY: The motion is passed that the resolution made by Dr. Johnson with reference to the cost of reprints and the submission of galley proofs be submitted for consideration. Are there any other items of business?

If not, we shall proceed with the next paper, "Further Observations on a Blood Protozoan of Turkeys Transmitted by Simulium Nigroparvum," by E. P. Johnson, animal pathologist, Virginia Agricultural Experiment Station, Blacksburg, Virginia.

... Dr. Johnson presented his prepared paper and showed slides. A discussion followed.

CHAIRMAN BRANDLY: I do not like to interrupt this stimulating discussion, but we must proceed with the next paper, "Further Studies on the Propagation of Fowl Leucosis in Chick Embryos by Intravenous Inoculation," by Walter J. Hall, Animal Disease Station, Beltsville, Maryland, and Morris Pollard.

... Dr. Hall presented the prepared paper. A discussion followed.

CHAIRMAN BRANDLY: Possibly the next paper will add something to the discussion. Dr. Pollard tells me that the title has been changed completely. It now reads, "The Interspecies Transmission of Avian Leucosis in Embryos," by Drs. Morris Pollard and Walter J. Hall.

... Dr. Pollard presented the prepared paper. A discussion followed.

CHAIRMAN BRANDLY: The next paper, "Studies on Production of Specific Antibodies Against the Agent of the Fowl-Paralysis Complex," by C. D. Lee, associate professor, Veterinary Research Institute, Iowa State College, Ames, Iowa. Dr. Lee is not here, and Secretary Beaudette has assumed the responsibility of presenting the paper.

... Dr. Beaudette read Dr. Lee's prepared paper.

CHAIRMAN BRANDLY: Thank you, Dr. Beaudette. I don't think there is any occasion for discussion of the paper since Dr. Lee is not here.

... Announcements by Chairman Brandly.

... The session adjourned at 5:00 p. m.

Section on Surgery and Obstetrics

Wednesday, August 13

The first session of the Section on Surgery and Obstetrics was called to order at 9:00 a.m. in the Patrol Room of Murat Temple, James N. Frost presiding.

CHAIRMAN FROST: As you know, this is the first time this section has met since it was created and the present officers were appointed. The chairman has not done much in preparing this program. Dr. Fowler, the secretary, has done most of the work and he is to be credited for this program.

It remains to be seen whether there is a place for the Section on Surgery and Obstetrics. It seems to me that most of these papers should be worth a good deal to the general practitioner. There is another question. This year we have not attempted to enter the field of small animal diseases and yet surgery and obstetrics is just as important there as it is with the larger animals. That is a question that somebody apparently will have to solve later on—whether or not this section should enter the field of surgery and obstetrics of the small animals.

We are a little bit late so we will get started with the first paper, "Surgery of the Equine Foot," by Dr. H. B. Treman of Rockwell City, Iowa. Dr. Treman.

DR. TREMAN: I don't want anyone to think that I am going to try to present anything new or startling or unusual in any way, because I could not. I just have a few thoughts and a few methods that I will present. Dr. Fowler asked me to do this on the program. These methods I have used myself in practice now for a number of years and find that they are practical and successful. I just want to present them for what they are worth. I have a foot here that I preserved a number of years ago, by which I will attempt to demonstrate a little bit of what I am trying to tell you in the paper. In order that I may not repeat myself and at the same time get all in that I want, I will read part of the time and try to show you the rest.

... Dr. Treman presented his prepared paper.

CHAIRMAN FROST: You have heard this interesting paper. We have just a minute or two, if anyone would like to ask Dr. Treman a question. I am sure he will be glad to answer. If there are no questions, we will go on to the next paper, "Laryngeal Activities and Their Relation to Roaring," by Dr. E. E. Wegner, dean and professor of surgery, College of Veterinary Medicine, State College of Washington, Pullman, Washington.

DR. WEGNER: In casting about for material for the program here, I found that it is difficult to find something that is entirely new to you and, perhaps if we can open the way to some thinking along a new line, it will at least develop into an advanced stage of our knowledge concerning some of the physiology that

we may have too long taken for granted. Sometimes I think that in our search for new knowledge we have too much of a tendency to keep on going over the hill further and further. Maybe if we would go back and work over the old ground we would find some "pay dirt" there that was overlooked. That is not uncommon in some of the old mining regions, at least, where they were supposed to have been worked out and then it was found that there was a good deal left behind that was not valued.

... Dr. Wegner presented his prepared paper. A discussion followed. . .

CHAIRMAN FROST: The next paper is "The Army Remount and Breeding Plan," by Captain William E. Jennings, Veterinary Corps, United States Army, formerly of Front Royal, Virginia, and now of Fort Sill, Oklahoma.

CAPTAIN JENNINGS: Gentlemen: The material for the paper I have prepared has been compiled from records kept at the depot for the past years, particularly for the past five or six years, and the first part of the paper is given over to introductory general remarks regarding the remount service of the Army proper.

... Captain Jennings presented his prepared paper and demonstrated with the use of slides. A discussion followed. . .

CHAIRMAN FROST: The next paper is "Sterility Due to Ovarian Dysfunction," by Dr. Frank E. Walsh, professor of obstetrics, Veterinary Division, Iowa State College, Ames, Iowa. Dr. Walsh.

... Dr. Walsh presented his prepared paper. A discussion followed. . .

CHAIRMAN FROST: We still have one paper which we would like to finish before noon. I think we had better proceed. This is on "Embryotomy in the Mare," by Walter R. Krill, associate professor, Department of Veterinary Medicine, College of Veterinary Medicine, The Ohio State University, Columbus, Ohio. Dr. Krill.

DR. KRILL: Mr. Chairman and Fellow Veterinarians: The operation I am going to discuss is far more difficult to perform than it is to talk about. However, in spite of the fact that there is a lot of hard work associated with embryotomy in the mare, I don't know of any phase of veterinary practice that gives one more thrill than to hear the flop of the fetus to the floor after a successful embryotomy. I am going to discuss the methods I have found to be most successful in my particular field and under the conditions which we have to work.

... Dr. Krill presented his prepared paper and demonstrated with the use of slides. A discussion followed. . .

CHAIRMAN FROST: If there are no other questions, we will adjourn until 1:30.

... The session adjourned at 12:30 p. m.

Afternoon Session

The afternoon session was called to order at 1:30 p. m., James N. Frost presiding.

CHAIRMAN FROST: If you will come to order, we will start our afternoon session. The first paper is "Sterility in the Bull," by Dr. Fred W. Miller of Whitewater, Wisconsin.

... Dr. Miller presented his prepared paper. A discussion followed. . .

CHAIRMAN FROST: The next paper, "Retained Placenta," by Dr. M. G. Fincher, professor of medicine and obstetrics, New York State Veterinary College, Ithaca, New York. Dr. Fincher.

... Dr. Fincher presented his prepared paper and demonstrated with the use of slides. A discussion followed. . .

CHAIRMAN FROST: Any further questions? If not, we will proceed to the business meeting. We are behind schedule.

According to article XIV of the by-laws, section 1, the section officers are to be appointed by the president from nominations made by the sections, and that is supposed to be done by ballot. Unless there are some objections, I think we could save a lot of time by making the nominations from the floor. I will ask Dr. Fowler to copy them down on the board. In making the nominations, I think it would be a good idea to keep in mind the section of the country the next meeting is to be held. It is to be held in the West.

... James Farquharson was nominated for chairman of the Section. . .

CHAIRMAN FROST: Any further nominations?

... There being no other nominations for chairman, the nominations were closed and the secretary was instructed to cast the unanimous ballot for Dr. Farquharson. . .

... E. E. Wegner was nominated for secretary. . .

CHAIRMAN FROST: Any further nominations?

... There being no other nominations, the nominations were closed and the secretary was instructed to cast the unanimous ballot for Dr. Wegner. . .

DR. BOYD: Mr. Chairman, I think it is appropriate at this time to extend to these gentlemen who are just retiring a vote of thanks, and so move.

... The motion was seconded. . .

... C. H. Case was appointed as temporary chairman. . .

DR. CASE: All in favor of Dr. Boyd's motion that we extend our gratitude to the chairman and secretary, say "I."

... A unanimous vote of thanks was extended to the retiring chairman and secretary. . .

CHAIRMAN FROST: The next paper is "Caesarean Section in the Bovine," by Dr. E. R. Frank, professor of surgery, Division of Veterinary Medicine, Kansas State College, Manhattan, Kansas.

... Dr. Frank presented his prepared paper and demonstrated with the use of slides. A discussion followed. . .

CHAIRMAN FROST: If there are no further questions, we will proceed with the next paper, "Bovine Sterility from a Practitioner's Viewpoint," by Dr. James C. Carey of West Liberty, Iowa.

... Dr. Carey presented his prepared paper. . .

CHAIRMAN FROST: Any questions you would like to ask Dr. Carey? If not, we will proceed with the next paper, "Recent Advances in Wound Treatment," by Dr. James Farquharson, head of surgery and clinics, Division of Veter-

inary Medicine, Colorado State College, Fort Collins, Colorado.

DR. FARQUHARSON: Mr. Chairman, Members: It is going to be difficult to discuss in this short time a problem which has taken three months of intensified work and actually a year altogether—wound treatment with the use of the various sulfones topically.

First of all, I want to give full credit to Dr. F. C. Mann of the Mayo Foundation, under

whose direction and guidance I did this work. I will try to read parts of the introduction here and then take up the experimental work with the lantern slides. Then, if you want to hear the clinical end of it, I will be glad to discuss that.

... Dr. Farquharson presented his prepared paper and demonstrated with slides. A discussion followed...

... The session adjourned at 5:30 p. m.

Business Sessions

First Session of the House of Representatives, August 11

The first session of the House of Representatives was called to order at 2:00 p. m. in the Egyptian Room of Murat Temple, Indianapolis, Indiana, President A. E. Wight presiding.

PRESIDENT WIGHT: Will the House come to order?

I would like to make just one or two remarks. The first one is that the seating arrangement is for the authorized members of the House to sit this side of the open space, and the visitors and others interested, behind that space. So, anyone this side of that space will be known to be an authorized delegate. If anybody behind that space is a delegate, we would be glad to have him come into this section, and *vice versa*.

Dr. Hardenbergh tells me that it is best for us to commence with the calling of the roll. I think that is very important and, therefore, I will ask Dr. Hardenbergh to take over that duty.

S. L. STEWART (Kansas): Mr. President, I would like to make a motion that instead of calling the roll, we have a few-minute caucus and that each member who is here rise and introduce himself, tell where he lives, and what branch of the profession he is in or occupies. It would make us a little better acquainted with each other.

... The motion was seconded by Dr. Mason Weadon, of District of Columbia...

PRESIDENT WIGHT: That is going to make it hard for the secretary to tally. I suggest that the secretary call the roll of states, and as he calls the state the man stand up and say who he is and what he does.

DR. STEWART: That will answer the purpose.

PRESIDENT WIGHT: Well, then, we won't need the motion, but we will put it anyway.

... The motion was put to vote and was carried...

PRESIDENT WIGHT: Dr. Hardenbergh, will you call the roll, starting with the states? The person called will arise and give his name, state where he lives and in what branch of the profession he is engaged.

... Roll call by Secretary Hardenbergh...

SECRETARY HARDENBERGH: Mr. President, there is a quorum present.

PRESIDENT WIGHT: A quorum having been declared present, I will call the order of busi-

ness. First is the report of the Executive Board. I will call upon Dr. Newsom.

DR. NEWSOM: Gentlemen, the first item to be reported by the Executive Board is the joint dog-food-testing program. Since this report was written by Dr. Jakeman, I shall ask him to read it.

DR. JAKEMAN: Delegates of the House of Representatives: As a member of the Board of Governors, I prepared this report to submit to the Executive Board as a report from the Board of Governors, and it is signed by each member of the Board of Governors.

I might say, gentlemen, that I have here exhibits accompanying this report which, I am sure you will agree, would be too lengthy to attempt to present to the House. They are available for anyone who wishes to look them over. There is one exhibit here, for example, a printed volume, that would take several hours in itself to read; it is a copy of the proceedings of a conference held between the American Meat Institute and the representatives of the joint committee.

I will refer to these, and there is one of them which I think it might be advisable to present to you.

... Dr. Jakeman presented the prepared report...

Report of the Board of Governors on the Dog-Food-Testing Program (August 1940 to August 1941)

During the Washington meeting a report was made by a subcommittee of the Executive Board on the dog-food-testing program. This committee consisted of O. V. Brumley, chairman, J. G. Hardenbergh and C. W. Bower. After intensive study of the program and the work being carried on, the committee submitted a comprehensive report analyzing the work carried on and giving specific recommendations directed toward improving the project.

One of the recommendations was that the Board of Governors should represent the AVMA in carrying out its cooperative part with the American Animal Hospital Association. This committee report was accepted and approved by the Executive Board and the

House of Representatives. It was subsequently published and given wide distribution with the idea of acquainting all veterinarians, as well as manufacturers, with the developments that had taken place and with the proposals for improving the program and assuring its success.

In order that you may obtain a picture of what has been accomplished since that report was rendered, the following data are submitted:

COMMITTEE RECOMMENDATION 1

"An educational program should be established through the JOURNAL and by direct contact with veterinarians at meetings and by bulletins and correspondence to acquaint them not only with the importance of the program in maintaining proper standards for dog food, but likewise in apprising the public of a service rendered in their behalf by our profession for the protection of the health of pet animals."

Board of Governors' Comments on Recommendation 1.—In carrying out an educational program the JOURNAL and *The North American Veterinarian* have carried seventeen different informative articles since the Washington meeting. In addition to this, material has been supplied to veterinarians who have presented it at 21 veterinary association meetings throughout the year. In addition, such material has been presented at conferences at the veterinary colleges and before many other groups.

Sixty-two hundred bulletins were mailed to members of the AVMA. Approximately 1,500 circular letters were sent to veterinarians, including two questionnaires. Newspapers have carried many articles prepared by our publicity agency on the work of the dog-food-testing program.

COMMITTEE RECOMMENDATION 2

"A similar program should be established for the benefit of the manufacturers of dog food, especially calling attention to the project now in operation, and how they may obtain the seal of approval for their foods. Material should be formulated and sent to them, such as application blanks, rules and regulations, information concerning test protocols from independent laboratories and the perpetuation of the tests."

Comments on Recommendation 2.—Two circular mailings totaling 500 have been made to manufacturers of dog foods. One of these was the report of the special Committee of the Executive Board on Dog-Food-Testing and it was transmitted with a letter signed by the presidents of the two associations, namely, A. E. Wight and D. A. Eastman.

The second mailing was a reprint from the JOURNAL, entitled "Information on the Dog-Food-Testing Program." This contained the questions and answers as compiled and supplied to the Executive Board members and House of Representatives at the Washington meeting. This mailing was accompanied by a letter signed by the secretaries of the two associations, namely, J. G. Hardenbergh and J. V.

Lacroix. These mailings comprised approximately 1,200 pieces of literature.

In carrying out the second part of this recommendation, an application blank and a new set of rules and regulations were sent to the manufacturers of approved foods. The rules and regulations were approved and adopted, being put into force July 1, 1941.

Information concerning test protocols from independent laboratories has been supplied to manufacturers and notice concerning this has been published in the veterinary journals. (See exhibit A.*)

COMMITTEE RECOMMENDATION 3

"The program should be given wide publicity for the benefit of the public, the profession and the manufacturers. The public at large should have more knowledge of what the profession is doing to protect their animals from disease caused by inadequate and often insanitary foods. The committee is of the opinion that this subject needs pitiless publicity in order to bring about a reform in the manufacture of dog foods. This publicity can be syndicated through newspapers by the regular publicity agents."

Comments on Recommendation 3.—The limited budget with which we have been forced to operate has of necessity restricted that which could be done this year to carry out the above proposals. However, 220 newspapers plus wire services were sent a story regarding the address of each of the speakers at the various state veterinary meetings and conferences. Clippings on file show a reader coverage of millions. These stories also were supplied to dog writers, certain trade magazines, kennel magazines, etc.

Two meetings were held with the manufacturers of approved foods. Publicity on these meetings was released to newspapers and trade magazines.

COMMITTEE RECOMMENDATION 4

"Continuous efforts should be made to solve differences of opinions that seem to exist among the various groups. Many of these differences are of minor importance and can eventually be overcome. They are not insurmountable and are only a state of mind in some instances. A degree of conciliation will be necessary for all concerned. A quality product is the important thing, rather than prejudice or greed."

Comments on Recommendation 4.—A joint conference was arranged in Chicago between the Advisory Scientific Council of our associations and the technical committee representing members of the American Meat Institute. There were two joint conferences held in Chicago with executives of the Institute and representatives of several of the large packers. We have available a copy of the proceedings of these meetings, which consists of approximately 200 pages of typewritten copy (exhibit B*).

The associations were represented at the

*On file at the executive secretary's office.

meetings of the American Feed Manufacturers Association at Hot Springs, Va. We were successful in having a special committee of the Executive Board of that organization appointed to consider the dog-food-testing plan of the veterinary associations and to report to the Executive Board of their association at its January meeting. This committee consists of H. J. Smith of the Ralston-Purina Company and Clarence Lee of the Beacon Milling Company.

In addition, numerous private conferences have been held with interested manufacturers. At these meetings the program was discussed in considerable detail. Wherever possible, we have adopted the recommendations received from the various groups in the industry. Where it was felt that the recommendations made would sacrifice certain fundamentals of our plan, we have thus far refused to give them official acknowledgment.

COMMITTEE RECOMMENDATION 5

"The American Veterinary Medical Association should take a firm stand on its right in insisting that a sanitary and quality dog food be distributed to the public at large. We strongly recommend that further study be given to the development of methods providing for adequate inspection of both plants and ingredients used in the manufacture of dog foods. Measures should be developed in cooperation with public and professional groups to bring this about."

Comments on Recommendation 5.—A conference was held in Washington with officials of the Bureau of Animal Industry and information obtained regarding the inspection of plants and ingredients by the department of Agriculture as it applies to dog food. It is proposed to give this phase of the problem further study during the coming year. In the rules and regulations adopted and placed in force on July 1st, the following section appears with respect to the inspection of plants and ingredients:

INSPECTION OF PLANTS AND INGREDIENTS

1) All plants manufacturing approved dog foods must operate under veterinary inspection acceptable to the Joint Committee on Foods.

2) All plants manufacturing approved dog foods, including warehouses, slaughterhouses and processing rooms must be kept in a clean and sanitary condition at all times and must operate under veterinary inspection acceptable to the Joint Committee on Foods and must be open to inspection by their representative at any time during working hours.

3) Inspection reports shall be filed at least quarterly with the Joint Committee on Foods.

4) All ingredients employed in the manufacture of approved dog foods must be derived from sources satisfactory to the Joint Committee on Foods and must pass satisfactory veterinary inspection and have been handled according to approved modern methods.

The following question was recently included in a questionnaire circulated to 1,350 veterinarians: "The Committee on Foods contemplates a greatly enlarged veterinary inspection of the plants and ingredients of dog-

food manufacturers. Would you be interested in being assigned to handle a portion of this inspection work?"

Further, those plants which at present manufacture approved dog foods are being inspected by veterinarians selected and employed by the Joint Committee on Foods.

NEW MANUFACTURERS

The official directory of approved foods appears in the *JOURNAL* and *The North American Veterinarian*. Three additional manufacturers have signed contracts for testing and approval of four foods. The number of manufacturers who have applied for the seal, or now hold it, has increased 100 per cent since the Washington meeting, a year ago.

Copies of the new contract form are attached to this report and copies are available for each member of the Executive Board (exhibit C*).

ANNUAL REPORT OF THE COMMITTEE ON FOODS AS PRESENTED AT THE ANNUAL MEETING OF THE AMERICAN ANIMAL HOSPITAL ASSOCIATION, APRIL 24, 1941 (EXHIBIT D*).

Printed copies of this report are available for members of the Executive Board. As this report contains specific recommendations calling for far-reaching changes in the general plan of the program, it was deemed necessary to hold a meeting between the Board of Governors of the AVMA and a special committee of the Executive Board of the AAHA. A complete report of that meeting is herewith incorporated for your information (exhibit E*).

At the present time the administration of the dog-food project is under the immediate direction and supervision of the above-named four-man committee. At a recent meeting of the committee, A. E. Wight was selected as the fifth member.

The legality of all these procedures, including the new contract and the new set of rules and regulations, is vouched for by Geo. Link, Jr., a prominent attorney of New York City. A copy of his findings is attached hereto (exhibit F*).

A survey just completed among 1,350 veterinarians indicates the following:

A survey among veterinarians who have at least some small animal practice is now in progress. It is proposed to continue this survey during the Indianapolis convention. The final result will appear subsequently in the *JOURNAL*. A preliminary synopsis of the results as they now appear is enlightening. Thirteen hundred and twenty-eight questionnaires were mailed. Approximately a 50 per cent return is now available. This information reveals that out of 560 replies, 506 state they believe that the testing and approval of dog feed is definitely a veterinary problem (exhibit G*).

Your Board of Governors has made a thorough study of the plan as it has been carried out through the year and feels that a great deal of progress has been made in placing it on a

*On file at the executive secretary's office.

more solid foundation. It further feels that this project is of inestimable value to the veterinary profession, to the dog owner and to the better manufacturers. The veterinary profession is fast becoming more familiar with the details of the plan and is, therefore, getting behind it more enthusiastically. It appears certain that the program will go forward more rapidly and a larger number of manufacturers will apply for the seal. Many of the differences of opinion which have prevented this in the past are being eliminated and a number of the better class of manufacturers who do not hold the seal at present are interested and will undoubtedly participate in the program within the near future. The changes made in accordance with the recommendations of the special committee of the Executive Board have greatly strengthened the program and there will be further changes made before the set-up will be ideal. This project is fast developing into one of enormous proportions, involving on one side the vast amount of money represented by the dog-food manufacturers and on the other side a large amount of work in carrying out the many details involved in maintaining office records, correspondence and promotional work. The program is basically sound. The associations are acting on competent legal advice and are on safe ground at all times. The project is non-profit making and the receipts and expenditures are an open book. An official audit and statement are rendered annually.

All food committee funds are kept in a special account. Accounts payable are recorded at the food committee's office, mailed to Acting Chairman Hardenbergh for approval and transmitted to the secretary of the AAHA, who prepares vouchers and mails them to the president of the AAHA for signature. He transmits them to the treasury of the food account for payment. A complete financial report of the Committee on Foods for the last fiscal year is attached (exhibit H*).

The holders of the seal have voluntarily set the fee at what they consider adequate and fair for meeting the actual expenses of testing, conducting and promoting the program.

The joint committee set-up gives the AVMA equal authority and control, with the central office in close touch with all proceedings.

This acting joint committee has held one meeting in Chicago since its organization and a complete record of the proceedings is attached (exhibit I*).

The project is self-sustaining and involves no financial outlay. It is worthy of veterinary leadership, has already done much to clarify the important subject of canine nutrition and will do more.

The careful study given to this matter by the Board of Governors enables it to recommend to the Board that the temporary arrangements made for carrying out the program be approved and that the committee be given a permanent official status so that this worth-

while project can be carried on in an efficient manner.

Respectfully submitted,

BOARD OF GOVERNORS

(Signed) I. E. NEWSOM, *Chairman*.

A. E. WIGHT,

H. W. JAKEMAN.

DR. NEWSOM: The Executive Board submits this report to you for your approval.

PRESIDENT WIGHT: You have heard the report and the chairman of the Executive Board informs me that he believes we should take action on the different sections of the report one at a time. The report that Dr. Jakeman just read is now under consideration.

A. A. HUSMAN (North Carolina): I move that we approve the recommendation of the Executive Board.

... The motion was seconded by William H. Ivens of Pennsylvania ...

PRESIDENT WIGHT: You have heard the motion and the second. Any discussion?

... Calls for question ...

PRESIDENT WIGHT: Any questions? All those in favor, manifest by saying "aye"; opposed "no." The motion is carried.

... The motion was put to vote and was carried ...

DR. NEWSOM: Gentlemen, the next item of the report of the Executive Board is the proposed amendments. I think there are copies of these proposals available to all of you, and if you will turn to that paper it will give you the action of the Executive Board on each one of them.

Proposed Amendments to the By-Laws

PROPOSAL NO. 1

The Executive Board recommends a little modification on this one. It recommends striking out the last line which reads: "... The appointee shall serve out the unexpired term of the member whose office he is appointed to fill."

The Board recommends, in place of that, a continuation of the previous sentence so that it would read: "... the appointee to serve until such time as a proper election can be held within that district to fill the unexpired term."

The reason is that it might happen that an Executive Board member would drop out within a few months after he was elected. It might be possible for the president to appoint such a man who would serve for 4½ years, or such a matter. It was thought wise, then, to change that to provide that the appointee would serve only as long as it was necessary to hold an election in the district to elect a successor.

So, the Executive Board then recommends the approval of proposal No. 1, as amended.

I think we had better vote on these separately.

... Proposal No. 1, as amended, would read as follows:

"Add a new paragraph to section 3 of article VIII to read: a) Vacancies occurring on the Executive Board for any reason, during the term for which the member was duly elected, shall be filled by appointment to be made by

*On file at the executive secretary's office.

the president, the appointee to serve until such time as a proper election can be held within that district to fill the unexpired term."

PRESIDENT WIGHT: You have heard proposal No. 1, submitted by the Executive Board. What is your desire?

WALTER R. KRILL (Ohio): I move the adoption of the recommendation.

... The motion was seconded by W. A. Barrette of South Carolina ...

C. P. ZEPP (New York): Can that be acted on at this meeting with the change in that proposal?

DR. NEWSOM: It does make it effective, yes.

DR. ZEPP: Then, the other point I wish to call your attention to in the constitution and by-laws, when you are dealing with corporate officers, unless we change the proposal here, is that the president does not have the right to appoint corporate officers. He can fill vacancies of committees, but has no right to appoint corporate officers. This proposal you are making here is to change that, as I take it. Is that correct?

DR. NEWSOM: I presume so.

DR. ZEPP: At the present time our constitution and by-laws call for an election. The president has the right to call for corporate officers. It has gone through the whole year. When he has the decision to make at such time, who will determine the time—will that be at the discretion of the president as to how soon the election can be held?

DR. NEWSOM: I can't answer that definitely, but the assumption is that it is at the discretion of the chairman of the Board of Governors, of which, of course, he is a member. The Board of Governors would be the body to serve during the time the Executive Board or the House of Representatives is not in session.

E. R. CUSHING (New Jersey): It seems to me the wording as it occurs here now on the proposed change is ambiguous, and inasmuch as this is a constitution of the Association, it does seem to me there should be a certain time placed in there.

... Dr. Newsom was requested to read the proposal again, which he read as amended ...

DR. NEWSOM: It is really a continuation of the sentence that is left there. It is perfectly possible to offer any further amendments from the floor if you want to clarify this.

DR. CUSHING: Mr. Chairman, inasmuch as the constitution provides, I think, two periods of 60 days for the election of the regular member of the Executive Board, it seems to me it is no more than proper that that time limit be put on this.

DR. NEWSOM: Move an amendment to that effect.

DR. CUSHING: I so move.

... The motion was seconded by Dr. Zepp of New York ...

PRESIDENT WIGHT: A motion has been made and seconded that the time be 60 days.

DR. CUSHING: Mr. Chairman, perhaps that wording should be changed just a little, as long as it is going to be a part of the constitution, as to just when this election is held. I would be in favor of letting this go for a few minutes,

or at least until another session, and work it into the proper terminology.

SECRETARY HARDENBERGH: Mr. Chairman, may I speak on this, as a matter of information, as to the time needed to hold an election?

PRESIDENT WIGHT: Yes, go ahead.

SECRETARY HARDENBERGH: As Dr. Cushing has stated, it requires at least two 60-day periods in which to nominate and elect a member of the Executive Board, but in order to prepare the nominating ballots, a period of time is necessary. Then, in between the completion of the nominations and the preparation of the ballots for the actual election, another period is necessary.

So, I would suggest that in your consideration of this time interval, a little more than four months be given the executive office—perhaps as much as five or six months.

PRESIDENT WIGHT: You have proposed not to act on this just at this time and have an opportunity to re-word it.

DR. CUSHING: I so move.

DR. STEWART: Mr. Chairman, there is a motion before the House, moved and seconded. It will have to be passed on, unless it is amended.

DR. HUSMAN: Mr. Chairman, I see no reason why we can't insert "six months" and let it go at that. The president has the power to appoint the man not to exceed six months. I would suggest that amendment to the motion.

PRESIDENT WIGHT: We want to do it right.

DR. ZEPP: Mr. President, could it be an immediate election and then let the time limit of six or nine months answer it, so that it would be classed as an immediate election, and so that the president could not defer the election a year, or something of that sort? That would give the Board time to meet any emergency if, for instance, the Board is taking steps to elect a member. The word "immediate," I think, would cover it and I think it would be satisfactory to everybody and not necessary to set a time limit—just use the word "immediate."

PRESIDENT WIGHT: Does that appeal to you?

DR. CUSHING: It is satisfactory to me.

PRESIDENT WIGHT: Would that word suffice?

DR. NEWSOM: Let me read this again and let's see where we would put this word "immediate": "... the appointee to serve until such time as a proper election can be held within that district to fill the unexpired term." Where do you want to put the word "immediate" in there?

DR. CUSHING: An election can't be held immediately in that district.

A. H. SCHMIDT (Minnesota): Just following that, "The president shall call an election immediately in that district." Would that answer the entire thing?

DR. NEWSOM: It would, if you understand what is meant by "immediate." It appears to me, gentlemen, that six months is not immediate.

DR. CUSHING: Immediate, with six months as the limit.

DR. NEWSOM: You can add another sentence and say: "Such election must be called within six months." Would that suit you?

DR. SCHMIDT: I don't think that would do it either, because if it is called within six months,

it would take another six months to finish the election. Why not word it that the president call this election within three weeks after the original vacancy occurs? That three weeks, I think, would be sufficient time to get together and do that. Or it could be even less—ten days, or something like that, and then let the election take its own course. It may take four or five months, it may take six months to complete that election, which would be immaterial, just so the election would be started.

DR. NEWSOM: I see now where you can put the word "immediate" if you want to: "... Immediate steps shall be taken by the president to call an election."

DR. CUSHING: Mr. President, I don't care about the time. It doesn't make any difference, but it does seem to me there should be a time limit. I don't care whether it is three weeks or six months, but I think there should be an exact wording there, instead of leaving it so indefinite as it is now.

DR. KRILL: As it stands now, would that call for an election where the unexpired term is less than six months?

J. C. FLYNN (Missouri): I offer as a substitute motion, beginning with the paragraph as outlined in section 3, article VIII: "(a) Vacancies occurring on the Executive Board for any reason, during the term for which the member was duly elected, shall be filled by appointment to be made by the president, the appointee to serve until the election can be held in the shortest possible time, except in the case of the member-at-large, whose vacancy shall be filled by an election at the next general assembly."

That will cover all of it because the action that has been suggested here would leave out the vacancy in the member-at-large. But he could be elected now. If there is a vacancy now, he could be elected by the general assembly that will convene at this meeting. If it is in the mid-term, between meetings, it could be held at the next general assembly. I believe that will cover the whole situation.

PRESIDENT WIGHT: Is there a motion to be disposed of?

DR. FLYNN: This is a substitute motion; if I have a second, it will take precedence.

DR. STEWART: I second the motion.

PRESIDENT WIGHT: The substitute motion, as stated by Dr. Flynn. Any further remarks?

DR. KRILL: Could we have it read?

DR. FLYNN: You will all recall where Dr. Newsom suggested the change be made in this present amendment as it was offered originally, that is, at the beginning of the words "appointee shall serve." That was to be scratched out and a substitute placed there.

Now, I will read the entire thing as I gave it awhile ago: "Vacancies occurring on the Executive Board for any reason, during the term for which the member was duly elected, shall be filled by appointment to be made by the president, the appointee to serve until election can be held in the shortest possible time, except in the case of the member-at-large, which shall be filled by election at the next general assembly."

Then I tried to explain, but I don't know whether you all heard me, that if there were a

vacancy in the office of the member-at-large, this provision of having to elect him in a certain length of time—60 days or such as that—would not apply in his case because he has to be elected in the general assembly.

So my motion, as a substitute motion here, takes precedence over the former motion and amendments, and is as I read it to you. If you act on this, it will, I think, clarify the situation and fill all the requirements.

PRESIDENT WIGHT: You have heard the motion and the second, and this explanation by Dr. Flynn. Now, are we ready to vote on this? ... Calls for question ...

PRESIDENT WIGHT: If so, I will ask for those in favor to signify by saying "aye"; opposed "no."

... The motion was put to vote and was carried ...

DR. NEWSOM: Proposal No. 2.

PROPOSAL No. 2

Add a new section to article VIII, to read: "*Section 7.*—No member of the Executive Board shall be eligible to serve as a delegate or alternate to the House of Representatives."

Comment: This provision was in the old constitution and by-laws, but was apparently overlooked in drawing up the new one.

The Board recommends that without amendment.

... It was voted, on motion by Dr. Husman, seconded by Dr. Weadon, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: Proposal No. 3.

PROPOSAL No. 3

If the foregoing is adopted, it is suggested that a similar provision be added to article IX; add a new paragraph to section 3, as follows: "(c) No member of the Executive Board shall be elected or designated to serve as a delegate or alternate."

Comment: This repetition may be unnecessary, but is considered desirable.

The Board recommends that without change.

... It was voted, on motion by Dr. Husman, seconded by Dr. Sigler, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: Proposal No. 4.

PROPOSAL No. 4

Amend article VI, by adding another section, to read: "*Section 6.*—A vacancy created in the office of treasurer by any cause shall be filled promptly by the Board of Governors, the appointment being made for the unexpired term."

Comment: Provision for replacement of every vital association officer has been made except in the instance of the treasurer. This amendment is aimed to correct this lack.

The Board recommends that without change.

... It was voted, on motion by Dr. Sigler, seconded by Dr. Husman, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: Proposal No. 5.

PROPOSAL No. 5

Amend paragraph b of section 2, article X, so that the next to the last sentence will read:

"Objections to an applicant's election shall be subject to review and action by the Executive Board, and decisions thereon shall be contained in the report of the Board to the House of Representatives."

Also, delete the last sentence in this paragraph.

Comment: The two sentences as they now stand are ambiguous.

The Board recommends that without amendment.

PRESIDENT WIGHT: You have heard the recommendation. What is your desire?

... It was voted, on motion by Dr. H. H. Baur of Louisiana, seconded by Dr. Husman, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: Proposal No. 6.

PROPOSAL No. 6

Amend paragraph a, under "Committee on Program" of section 1, article XII, to read as follows: "a) Personnel. This committee shall consist of the chairmen and secretaries of the regular sections, and the executive secretary, who shall act as chairman."

Comment: In adopting the newly-revised constitution and administrative by-laws at the Washington session, a proposal was approved to set up a "Scientific Council" (see section 3 of article XIV), which comprises the section officers and charges them with the identical duties of the Committee on Program. It is desirable, therefore, to abolish either the Committee on Program or the Scientific Council in order to avoid confliction.

It is suggested that the Committee on Program be retained and broadened in membership as indicated and that the term "Scientific Council" be dropped as unnecessary.

The Board recommends that without change.

... It was voted on motion by Dr. Ivens, seconded by Dr. Husman, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: Proposal No. 7.

PROPOSAL No. 7

If proposal 6 is approved, section 3 of article XIV should be changed to read: "Section 3.—The officers of the regular sections shall serve as the Committee on Program as provided in article XII."

The Board recommends it without amendment.

... It was voted, on motion by Dr. Krill, seconded by Dr. Husman, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: Proposal No. 8.

PROPOSAL No. 8

Add sections 4 and 5 to article XIV as follows:

"Section 2.—Papers Read by Title. No paper shall be published as having been read before a section unless it has actually been read, or unless the section shall vote to have it read by title."

"Section 5.—Property of Papers. All papers and reports of any nature presented to the Association, or to any section, shall be the property of the Association, if approved for publication in the Association journals. Prior publication elsewhere of any such papers or reports, or official abstracts thereof, shall not be made except by consent of the Board of Governors."

The Board recommends this without change.

... It was voted, on motion by Dr. Barnette, seconded by Dr. Husman, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: Proposal No. 9.

PROPOSAL No. 9

Change section 3 of article XVII to read as follows: "Section 3.—The Board of Governors shall serve as the Committee on Journal, acting in the capacity of a managing editor."

The Board recommends this without amendment.

... It was voted, on motion by Dr. Ivens, seconded by Dr. Stewart of Kansas, that the recommendation of the Executive Board be adopted ...

DR. NEWSOM: The Board wishes to submit three proposals or amendments, but they can not be acted upon at this meeting. We merely submit them here. They will be acted on at the next annual meeting, so they require no action now.

First, in subparagraph A of section 5, article X, to clarify student applicants' listings: "Junior members recommended as being in good standing in their respective junior chapters for three years may be admitted to membership without the payment of the membership fee of \$5.00, provided the application is filed and completed within 30 days after the date of their graduation."

The new proposal is to strike out the words "and completed" because it isn't physically possible to comply with it. You see, the names must be published 30 days apart. I suppose it is conceivable that you might file the application one day, have it immediately published, and have it published again in 30 days, but that would hardly ever occur. That is an error that crept in, and this proposal is made to correct it.

The next one is, there is nothing in the constitution and by-laws to definitely determine when the Board members' terms of office shall be completed. So the Board recommends, that is, is presenting a proposal which would state, that the term of office of the Board member end at the end of the annual meeting in his last year after election.

That has been the practice for several years, but it is not actually in there.

The next proposal has to do with resident state secretaries.

This was just handed to me. The Board passed it and approved its presentation, but it did not have the exact wording. Here is the wording that has been handed to me: "It shall be the duty of each constituent association to elect one of its members as resident state secretary at the state meeting preceding the annual convention, and to submit his name for the approval of the president-elect."

You see, this changes the form.

... Dr. Newsom read the paragraph ...

DR. NEWSOM: Of course, these three pro-

posals will be published in the JOURNAL, and you can discuss them and pass upon them next year. Dr. Wight brought up the question before the Executive Board of a Pan-American Veterinary Congress and, after considerable discussion, the matter was referred to a committee for further consideration.

Do you care to say anything about it, Dr. Wight?

PRESIDENT WIGHT: Not at this time, no.

DR. NEWSOM: I think you all appreciate the reasons for such a suggestion. I thought you would be interested to know it has been referred to a committee for further discussion.

Honorary Memberships

DR. NEWSOM: The Board wishes to present the following nominations for honorary membership: Secretary of Agriculture Claude Wickard, Professor James E. Rice, Professor Leo F. Rettger.

PRESIDENT WIGHT: According to the by-laws, action on nominations of the three persons for honorary membership will take place at the last session of this body.

DR. NEWSOM: Dr. Jakeman presented to the Board a proposal for an annual award and, since he has given a good deal of time to this matter, I am going to ask him to present the proposal to you now.

Humane Act Award

H. W. JAKEMAN (Boston): The following proposal was made to the Executive Board for its consideration. It is based on the publicity potentialities it carries and also on the interest and concern all veterinarians have in the humane consideration of animals. Encouragement of kind and compassionate aid to animals in distress, especially among children, is something our profession can do with little cost or effort, but with far-reaching effect.

It is recommended that the American Veterinary Medical Association establish an annual award, to be known as "The American Veterinary Medical Association Humane Act Award," to be given to a boy or girl not over 18 years of age in the United States or Canada, for an outstanding humane act in connection with animals. The nature of and the amount of this award should be decided by the Executive Board.

1) It is recommended that an AVMA committee be appointed to select the winner each year. Suggested names of winners could then be sent to this committee throughout the year by any interested persons or groups.

2) It is recommended also that this award, which might be in the form of a medal, a loving cup or a cash prize, be presented at the annual convention banquet or at a general session. The boy or girl would be brought to the banquet to receive the award, which would be presented, if possible, by the governor of the state, the mayor of the city or a similar prominent official of the area where the convention is held. Or, the presentation might be made by the president of the AVMA.

3) It is suggested that the Executive Board appropriate a sum to cover the award and to

take care of the traveling expenses of the winner, and, if necessary, one of his parents, to and from the convention.

4) It is recommended further that a decision to make such an award be adopted during the Indianapolis convention so that publicity can be released on it during the convention.

5) It is recommended that the award be made at each annual convention. The first presentation could be made at the San Francisco meeting in 1942. Thereafter, it would become an annual event to which the newspapers would look forward.

I might say, gentlemen, supplementing this recommendation, some of you may think I am putting the cart before the horse. Most men, when they are singing their "swan songs," make a number of recommendations, and it has been my observation in the last eight or ten years that these are lost in the shuffle, referred to a board or committee and are forgotten. I am making a few recommendations to be put in at the beginning of my term of office so that I can help to carry them out.

The Executive Board voted to refer this proposal to a committee for study and to submit it to you for your approval before this committee does anything about it. There is not a lot of money involved—it can run from \$25 up. If a loving cup were put up, it would not cost more than \$10 or \$15. If it is decided that there are not sufficient funds for the person getting it to come to the meeting, that could be eliminated.

If the delegates would approve it, and leave it to this subcommittee of the Executive Board to arrange details in accordance with cost, I assure you it will enable us to go forward.

DR. NEWSOM: The Board recommends the adoption of this proposal and, if you approve, that it be referred to a committee to work out the details.

PRESIDENT WIGHT: Gentlemen, you have heard the recommendation of the chairman of the Board.

W. H. IVENS (Pennsylvania): I move that it be adopted.

... The motion was seconded by Dr. Husman ...

PRESIDENT WIGHT: It has been moved and seconded that the recommendation be adopted. Any discussion? Any remarks? It is something that I hope you will all fully understand. Dr. Jakeman should be complimented on initiating a thing of this kind.

All those in favor of the proposition, say "aye"; those opposed "no."

... The motion was put to vote and was carried ...

DR. NEWSOM: There is another matter to which Dr. Jakeman has given a great deal of consideration, the advisory research council. While his report is rather lengthy, I think he can give you a summary of what he proposes. When he has done that, the Board wants to recommend it also.

DR. JAKEMAN: This proposal, gentlemen, follows along the line of what I just said, that of adopting this as a project for the year, rather than making it as a recommendation at the close of the year. Some nine or ten

pages of the proposal were submitted to the Executive Board and, while I don't want to bore you with reading this entire proposal, I do want to give you a picture of it, so that you can consider it adequately. If there are any questions pertaining to it, I shall be glad to answer them.

I have not written out the synopsis, but I will attempt to give it to you briefly. Perhaps I should read the first part, as it pertains to the selection of a research council or editorial staff for the new research journal.

... Dr. Jakeman read a part of the report. [The complete report is published herewith.] ...

Proposal for an Editorial Research Council and a Project to Encourage Research

One of the improvements carried out by the Reorganizing Committee was the establishment of a staff of associate editors for the official journal. Shortly after deciding to publish the American Journal of Veterinary Research, the Board of Governors realized that it would be essential to make some provision for safeguarding this publication. It was felt that it would be desirable to have a group of members, specialists in different fields, to review all articles before they were released for publication and that it would be a propitious and sound move to set up a research council for this purpose. In order to maintain a high standard for the research journal and to make it outstanding in the field of research publications, the Board of Governors recognized that it would be a fundamental requisite to avoid the publication of any article which might contain highly controversial statements lacking sufficient scientific data to back them up.

After discussing the method of selecting a research council, it was decided to consult with various ones who were in a position to offer advice. The matter was turned over to Dr. Hardenbergh and myself. It was thought that the deans of the veterinary colleges and veterinarians connected with research institutions might offer suggestions and nominations.

Inasmuch as it is desirable for the president of this or any other organization to have a definite plan, or a program of worthwhile projects, to foster during his term of office, a project to encourage graduate study and veterinary research seemed timely for the ensuing year. It occurred to me that this idea might be coupled with the establishment of a research council. In addition to editorial work for the journal of research, the council could plan and supervise a program for encouraging and furthering veterinary research, providing the Executive Board sees fit to approve such a presidential project.

With this in mind, correspondence was carried on with the deans of our veterinary colleges and with a large number of men engaged in veterinary research at various institutions throughout the United States and Canada. The proposal as submitted to them received hearty endorsement and many suggestions were received.

Copies of replies were made and sent to

members of the Board of Governors and to Dr. Hardenbergh. A slate was made up of men receiving the largest number of nominations. It is interesting to note that in some of the classifications, no two nominations were for the same individual. This might well indicate that there are a number of outstanding men in different subjects and it can be readily understood why the selection of a council became extremely difficult. An attempt was made to spread the selections over the entire country and to avoid selecting more than one man from any given college or institution. In addition to selecting a man for his scholastic qualifications, it was also kept in mind that other factors should be considered. These considerations included interest in AVMA affairs, time for additional work and, in so far as could be adjudged, a reputation of having a fair and broad-minded attitude.

After careful study and much thought, the following list was compiled and is submitted for your consideration:

Anatomy and Histology: Harry L. Foust, Iowa State College, Ames, Iowa.

Physiology and Pharmacology: H. H. Dukes, New York State Veterinary College, Ithaca, N. Y.

Biochemistry and Animal Nutrition: George H. Hart, University Farm, Davis, Calif.

Large Animal Surgery: W. F. Guard, The Ohio State University, Columbus, Ohio.

Small Animal Surgery: C. F. Schlotthauer, Mayo Foundation, Rochester, Minn.

Large Animal Medicine: James Farquharson, Colorado State College, Fort Collins, Colo.

Small Animal Medicine: M. L. Morris, New Brunswick, N. J.

Veterinary Hygiene: W. E. Cotton, Alabama Polytechnic Institute, Auburn, Ala.

Bacteriology (Immunology and Biological Therapy): Edward Records, University of Nevada, Reno, Nev.

Virus Diseases: R. A. Kelser, U. S. Army, Washington, D. C.

X-Ray: M. A. Emmerson, University of Pennsylvania, Philadelphia, Pa.

Pathology: E. T. Hallman, Michigan State College, East Lansing, Mich.

Parasitology: E. W. Price, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C.

Member-at-Large: E. A. Watson, Animal Disease Research Institute, Hull, Que.

The success of a project to encourage research and to correlate research efforts will depend largely on the time, effort and interest given to it by the council. In order to carry out such a program, it is proposed to establish a fellowship fund and to obtain \$1,000 contributions to this from various industrial organizations. There has been much interest shown and evidence of a willingness on the part of many concerns to do something tangible for the benefit of the veterinary profession. Undoubtedly, a large number of donations to this fund can be obtained so that the program can be made successful. In each instance thus far, it is agreeable that the money be placed in a general fund for developing research and that no strings be tied to it by any of the contribu-

tors. In other words, this fund will be controlled and used by the council subject to the approval of the Executive Board. It is suggested that the research program be set up, in so far as possible, to work in with defense efforts and also with the inevitable rehabilitation program. Increased demand for products of animal origin, increased animal production and greater value of food-producing animals will require our profession to give its fullest cooperation in protecting these interests and thus doing its part in national defense. The element of public health and the control of animal diseases transmissible to man will be of even greater significance for many years. A program to encourage research in problems of practical significance will be far reaching and of benefit to the livestock owner, the general public and the veterinary profession, and probably to the private practitioner as well.

By making available fellowship funds, it would be possible for the research council to assign problems to various institutions and for these institutions to recommend to the council some outstanding recent graduate with pronounced inclinations toward the research field. A record of undergraduate grades and other qualifications should be submitted. Selections would, of course, be made by the council. The project would encourage many capable young men to continue in the field of research rather than to accept some salaried position, or enter practice and thus be lost to the research field. It would also give stimulus to graduate study. Many of our industries are looking for young veterinarians qualified in various fields to carry on research work or fill other positions for them. The number qualified for such work is altogether too small and unless something is done to stimulate endeavor along these lines, the profession will not be in a position to meet future demands.

Much of the veterinary research work that has been done is a duplication of effort. A research council could establish itself as a clearing house and could be of inestimable value in correlating and, at least in a measure, influencing and guiding all veterinary research endeavor. This ideal will undoubtedly require time for development. However, it is not impossible of attainment and it is something in which the AVMA should take leadership.

While the possibilities of development are almost unlimited, it would be a step in the right direction to establish fellowships immediately. This would not only prove an impetus to all veterinary research endeavor, but it also would result in practical benefits during a period of world chaos when the veterinary profession is faced with grave responsibilities. A research council can survey the present situation regarding veterinary research and compile data that will aid in coordinating effort and activities.

It is possible that in the future, financial provision will need to be made for the time and effort given to this work by members of the council. It would seem, however, that a program of this kind is of great enough im-

portance to the veterinary profession and to the livestock industry that it will win support from various agencies in a position to make financial contributions.

This project should in no way conflict with veterinary colleges or institutions at which research is being conducted. It is planned to work in close cooperation with these institutions and to be of assistance to them in a consulting capacity, as well as in a financial way.

If the proposed council is approved by the Executive Board, it is suggested that as many as might be in attendance at this convention be called together for a conference and for organization. Temporary plans can be worked out for drawing up rules and regulations and other definite working arrangements. Provision will need to be made for defraying ordinary expenses of the council and for setting the machinery in operation as regards handling the fellowship fund through the central office. It will be advisable to have this fund controlled in the same manner as other funds of the Association and, of course, to have it included in the treasurer's records.

At the present time no funds whatever have been received, but a few promises of \$1,000 donations to the fellowship fund have been received.

A number of others are awaiting definite information as to what the set-up will be. Real interest has been shown in the proposal and when the objective is clearly outlined and the detail of operating has been worked out, it is beyond question that many more donations will be forthcoming. Personally, I see no reason why this fund can not reach at least \$25,000.

In order to bring this proposal before the Executive Board for consideration and action, the following suggestions and recommendations are offered:

- 1) That the research council as submitted be approved.
- 2) That one third of the members be appointed for one year, one third for two years and one third for three years, beginning with the opening of this convention, and that the present Board of Governors be authorized to designate these terms of service—all subsequent appointments to be made by the Board of Governors and the executive secretary, subject to the approval of the Executive Board.
- 3) That provision be made by the budget committee for funds to take care of expenses of the council incurred in connection with its editorial duties and, until such time as monies are available from the fellowship fund, any expenses connected with the development of the project.
- 4) That the council select its own officers and render a report every six months to the executive secretary, who in turn will render a detailed report to the Board of Governors and/or the Executive Board twice a year.
- 5) That the council be given full authority

to reject any article or other material submitted for publication in the American Journal of Veterinary Research. The reasons for rejection must be stated in writing.

6) That the council be instructed to develop plans for a project to encourage and advance veterinary research based on the establishment of a number of \$1,000 fellowships; that rules and regulations to cover all phases of the program be formulated, giving consideration to the awarding and distribution of the fellowships and the selection of fellows, providing in so far as possible for carrying out the wishes of the contributing organizations.

7) That the project be so set up that it will not conflict in any way with research programs at any of the colleges or research institutions.

8) That a questionnaire be sent to all veterinary colleges and research institutions in order to conduct a survey of the number and kind of research projects in progress and thus approach more intelligently the task of correlating efforts and outlining a plan of procedure. Regulations governing fellowships at these colleges also should be obtained by the council.

9) That a policy similar to that of the National Research Council with respect to the patenting of results arising from work supported by the National Research Council be adopted by the AVMA, namely: "That in the event patentable discoveries are made in the course of work carried on under the auspices of the council, it is expected that the fellows or others, on the approval of the council, which will defray the cost, will apply for patents on such discoveries as should be protected in the interests of the public and that such patents will be assigned to the council; and, further, that the council hereby declares its intention to dedicate to the use of the public, in such manner as it may deem most effective, the results of such discoveries as are made in the course of investigations conducted under its auspices."

10) That in the awarding of fellowships provision be made for an award to a private practitioner for an article on original work or observations in some phase of clinical veterinary medicine. Such article should be judged on the basis of its practical value in the advancement of professional knowledge.

H. W. JAKEMAN, *President-Elect*.

DR. JAKEMAN: I won't go on reading. I will merely state that considerable correspondence has been carried on during the year with research men of the various institutions over the country, as well as the deans of our colleges, to obtain their reactions, suggestions and opinions, as well as nominations for members of the council.

The advice and help that was received showed that this program was one which would meet

with the approval of the profession at large and of our institutions.

The council was finally formed, having in mind the entire country and with no two men from the same institution, if it could be avoided. This council, consisting of 14 men, including one member-at-large representing Canada, was submitted to the Executive Board yesterday and approved.

The matter developed in connection with the research program was that of encouraging graduate study, and also to get young men who are particularly adapted and have an inclination toward research to continue in that field with the idea of developing additional research workers.

Perhaps if I read the recommendations made to the Executive Board and approved by them, it would give you a little clearer picture, without reading this entire report. I might say the basis of it is the establishment of fellowships through a fellowship fund, to be controlled by the council, and will consist of establishing \$1,000 fellowships at various institutions carrying on research work in important problems. This will not only develop veterinary research workers, but will also result in other benefits, especially during this time of emergency.

The basic ideas are simply a working foundation to get this thing going. They need not stand indefinitely without modification by the council when it becomes organized and establishes its own rules and regulations, and puts into operation the plan it considers is in the best interests of the Association.

(Dr. Jakeman read the recommendations.)

That policy is merely to prevent the patenting of anything that might develop from a commercial standpoint, to place it under the control of the Association just as research projects conducted under the auspices of the National Research Council are protected.

(Read Recommendation No. 10 about the awarding of fellowships.)

That was put in with the idea that many practitioners who do really outstanding research work in their particular fields never actually convey their findings to the profession. The profession never gets the benefit and so the recording of observations that are made in the field might be worth while for this organization to stimulate.

That is, briefly, the outline. I might add that thus far two definite promises of fellowships have been received. There are some half dozen in the offing, waiting until the plan has been approved by the House of Representatives.

I feel sure that there will be no difficulty in establishing a fund of at least \$12,000, and perhaps in a few years that can easily be made up to \$25,000, to be used in organizing veterinary research work.

If there are any questions I will try to answer them.

DR. NEWSOM: The Board recommends approval of this proposal.

PRESIDENT WIGHT: Gentlemen, you have heard the proposal. Any discussion?

How do you want to handle that? It has been given a great deal of thought by Dr. Jakeman and he explained it fully to the Board, and the Board adopted and approved it. Now it has come before you gentlemen for action.

DR. HUSMAN: Mr. Chairman, I would like to ask Dr. Jakeman how many of these fellowships we would establish. He referred to world fellowships. How many would there be and how would we finance them? Would the Association finance it?

DR. JAKEMAN: Oh, no. These are financed entirely by donations from organizations to this fellowship fund. It is not financed by the Association at all and the number of fellowships which will be developed depends entirely upon the amount of money we receive.

It is suggested these fellowships consist of at least \$1,000, because many young men who might go on in the field of research, who might be capable of doing fine work, are not financially able. In other words, a fellowship of \$500 would not finance him and he would quit, whereas if he could get \$1,000, it would be of great help.

DR. BARNETTE (South Carolina): Mr. Chairman, I think this is an unusually wise step. I think there has been a lot of thought given to it, and I believe we can put a thing of this kind over and it will be worth more than anything that has been done in a long time. I move its adoption.

... The motion was seconded by Dr. Krill ...

PRESIDENT WIGHT: It has been moved and seconded by this body. Any discussion?

DR. FLYNN: Mr. Chairman, this seems to be rather a gigantic proposition, something that is new, possibly to 75 per cent of the delegates here. I would like to amend that motion by making it a special order of business for 9:00 this evening at our session. That will give us a little time to sift it.

I move that as an amendment.

... The motion was seconded by Dr. Johnson, was put to vote and was carried ...

DR. NEWSOM: This completes the report of the Executive Board. The Board meets at 9:00 Wednesday morning, so if any of you have anything to bring before it, remember that time. It is not a regularly scheduled meeting, so the Board will have some more material on Thursday evening, but not before.

PRESIDENT WIGHT: You have heard the announcement that all material now ready has been presented by the Board and they will not have any more until the last session on Thursday. There will be a session of the Board at 9:00 Wednesday morning.

The next item is the report of the executive secretary. I will call upon Dr. Hardenbergh.

... Secretary Hardenbergh read his prepared report ...

Report of the Executive Secretary

Mr. President and Delegates:

This report of the activities of the executive office and of the Association's affairs covers the year from August 1, 1940, to August 1, 1941. As factual records, these annual reports serve as useful measures of the Association's growth and progress from year to year.

I. MEMBERSHIP

Growth in membership during the year has been good, but not phenomenal. As of August 1, 1940, the enrollment was 6,137; as of August 1, 1941, the figure is 6,657, or a net increase of 520. It can now be said that the AVMA represents a clear majority of the veterinary population of America. The goal of at least 7,000 members by 1942 seems a reasonable certainty.

The applications of 766 new members were listed during the year. Of these, 440, or 57 per cent, were received from senior student chapter members most of whom were men who, upon graduation, availed themselves of the privilege granted to seniors in good standing in their respective chapters to join the Association without payment of the \$5 membership fee. Such applicants pay only the prorated dues for the balance of the year from the time the applications are filed. Four student chapters enrolled 100 per cent of their eligible members; the eleven chapters as a whole enrolled 440 out of 558 graduates, or 79 per cent. For this fine work we are grateful to the deans and faculty members of our colleges who undertook and carried on the arduous and complicated work of signing up these youngest members of our association.

For the other 327 applicants, we are indebted to resident state secretaries, officers of constituent associations and other members who, out of their belief in organization aims, have served as ambassadors of good will to promote active membership in the national association.

Honor Roll.—This year the names of three men who have records of continuous good standing as members for 50 years are added to the Honor Roll. They were admitted in 1891.

N. S. Mayo (Chi. '89), Highland Park, Ill.

E. B. Ackerman (Amer. '91), Huntington, L. I.

John P. Turner (U. P. '90), Washington, D. C.

The complete list now includes nine names, the others being:

C. W. Crawley (Amer. '76), St. Louis, Mo., admitted 1876.

L. H. Howard (Amer. '82), Brookline, Mass., admitted 1882.

H. P. Eves (U. P. '87), Wilmington, Del., admitted 1889.

J. W. Connaway (Chi. '90), Columbia, Mo., admitted 1890.

G. A. Johnson (Iowa '90), Orlando, Fla., admitted 1890.

Walter Shaw (Ont. '81), Dayton, Ohio, admitted 1890.

Deaths.—From August 1, 1940, to August 1, 1941, the deaths of 43 members have been reported to us, as follows:

		PAYMENT OF DUES AND DISTRIBUTION OF MEMBERSHIP				
			Paid 1941	Owe 1941	Owe 1940 and 1941	Totals
Anderson, G. D.	Lindsay, D. R.	State, etc.				
Anderson, J. H. A.	McConnell, F. M.	Alabama	78	17	6	101
Bleecker, D. E.	McLean, W. C.	Arizona	23	2	1	26
Briggs, C. L.	Mackey, G. L.	Arkansas	39	3	4	46
Burnette, C. A.	Maxwell, E. P.	California	442	20	14	476
Crabb, L. C.	M'Fadyean, J.	Colorado	107	4	3	114
Dillon, H. C.	Nicholas, D. W.	Connecticut	76	1	1	78
Drake, M. W.	Ostertag, R. V.	Delaware	17	1	..	18
Emmitt, O.	Pfersick, J. G.	Dist. of Columbia...	72	2	..	74
Etienne, A. A.		Florida	86	12	2	100
Ewen, L. C.		Georgia	74	13	4	91
Foelschow, G. W.	Robertson, J. E.	Idaho	39	..	1	40
Frazer, W.		Illinois	346	9	5	360
Gibson, S. S.	Sallade, J. G.	Indiana	252	9	5	266
Gilbert, I. P.	Shaw, R. R.	Iowa	334	26	14	374
Gordon, J. S.	Smart, E. G.	Kansas	175	18	9	202
Graff, C.	Smith, W. A.	Kentucky	65	4	1	70
Green, H. H.	Staab, J. J.	Louisiana	48	7	3	58
Hatterscheid, C. A.	Stamen, H. C.	Maine	32	3	..	35
Holzer, J. N.	Stiles, C. W.	Maryland	102	3	3	108
Jelen, F. A.	Thayer, W. L.	Massachusetts	116	8	4	128
Kippen, N. A.	Tower, W. J.	Michigan	193	11	9	213
	Wilson, J. O.	Minnesota	236	19	14	269
	Wilson, J. T.	Mississippi	40	2	3	45
		Missouri	170	3	7	180
		Montana	45	..	..	45
		Nebraska	108	9	6	123
		Nevada	15	..	..	15
		New Hampshire.....	21	2	1	24
		New Jersey	165	8	4	177
		New Mexico	17	1	..	18
		New York.....	420	35	15	470
		North Carolina.....	83	9	5	97
		North Dakota.....	42	3	2	47
		Ohio	328	26	18	372
		Oklahoma	93	6	9	108
		Oregon	79	5	1	85
		Pennsylvania	302	19	11	332
		Rhode Island.....	13	2	..	15
		South Carolina.....	47	..	1	48
		South Dakota.....	54	2	4	60
		Tennessee	57	8	2	67
		Texas	235	21	5	261
		Utah	44	2	3	49
		Vermont	22	3	..	25
		Virginia	94	11	2	107
		Washington	117	3	..	120
		West Virginia.....	33	1	1	35
		Wisconsin	156	6	..	162
		Wyoming	21	..	1	22
		Alaska	2	..	..	2
		Canal Zone.....	11	..	..	11
		Hawaii	19	..	..	19
		Puerto Rico.....	13	..	..	13
		Philippines	19	4	1	24
		Virgin Islands.....	1	..	..	1
		Canada	131	13	6	150
		Foreign	42	4	2	48
		Honorary .....	..	..	..	33
			6,011	400	213	6,657

Resignations.—The resignations of 17 members have been received and recommended for acceptance by the Executive Board.

Delinquents.—There are 140 members who have failed to pay their dues after repeated notices (owe dues for 1939, 1940 and 1941) and have been dropped by action of the Executive Board. In addition, it is necessary to report on a new class of delinquents, namely "delinquent applicants." These unusual cases came about as a result of the choice given for a time prior to January 1, 1941, whereby applicants were to be billed for their membership fees and dues upon acceptance of their applications. A number of these failed to pay after repeated billing and will be subject to dropping from the membership roll as "applications pending," where they have been carried.

The practice of accepting applications subject to future payment is contrary to the by-laws and has been discontinued. It is mentioned here for the information of resident state secretaries and others who may have on hand a supply of membership blanks on which is printed the choice of payment referred to. This should be crossed off.

In the following column is a table which shows the distribution of membership and dues

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In the following column is a table which shows the distribution of membership and dues status by geographical subdivisions.

II. THE ASSOCIATION'S DOLLAR— HOW OBTAINED AND HOW SPENT

The financial status is second only in importance to the membership status. Although closely and directly related, our finances are not the complete result of memberships alone. The purpose of this analysis, therefore, is to provide a clearer understanding of our fiscal picture.

The reports of the treasurer and of the Committee on Budget give full accountings of receipts and expenditures. These reports are, re-

Recapitulation of Membership

Total as of August 1, 1940.....	6,137
Number of applicants admitted	764
	6,901
Lost by death	43
Lost by resignation	17
Lost by delinquency	140
Lost by delinquency of applica- tion	44
	244
Active membership as of August 1, 1941	6,657
Net gain for the year	520

spectively, actual for the fiscal year just passed and prospective for the year ahead. They do not at a glance convey the relationship of the various items one to the other or to the whole. The following figures are based on the actual receipts and expenditures for the fiscal year from July 1, 1940, to June 30, 1941.

Forty-seven cents of the Association's dollar, or not quite half, came from membership fees and dues. The remaining 53 cents had to be earned. The figures are:

How Obtained—

From:

Membership fees and dues	\$.47
Journal advertising .....	.21
Subscriptions* .....	.13
Convention receipts .....	.10
Miscellaneous sources (sale of emblems, directories, addressing services, etc.) .....	.07
Bond interest .....	.02
	<hr/>
	\$1.00

How Spent—

For:

Publication of Journals.....	\$.32
Salaries (including editorial staff)...	.26
Convention .....	.10
Travel (officers, committees, employés) .....	.07
Publicity .....	.06
Postage (including mailing of journals) .....	.05
Stationery and office supplies .....	.04
Rent, light and electric current.....	.04
Miscellaneous (freight, express, flowers, legal, etc.) .....	.04
Taxes (Social Security, State and Federal Unemployment) .....	.02
	<hr/>
	\$1.00

These figures largely explain themselves. As has been pointed out in previous reports, our journals are the greatest single item of expense; this matter will be dealt with later on in this report. Last year the money received and spent on the convention account was the same, on a dollar-analysis basis. This is as it should be, although deficits from the annual meeting are difficult to avoid, and surpluses are seldom actual when all convention costs are taken into account.

The Budget.—The executive office transacts the business of the Association and, in so doing, is responsible for the expenditure of funds according to the recommendations that have been made by the Committee on Budget. As a later report will show, both the total income and total expenditures have been greater than anticipated a year ago. For this reason and others, the executive office has requested the Committee on Budget this year to make a close study of our financial picture. This has been done.

Increased revenues are predictable, but should not be relied upon too much; increased and unexpected expenditures are sometimes un-

avoidable. We strongly urge every economy consistent with accomplishment of the Association's projects and the carrying on of its essential activities. For the time being, marked improvement in the national income as a fact of today may herald increased revenues for our own association indirectly; however, repercussions and reactions are certain to follow the very things responsible for the increased national income. We should take steps now to cushion our own organization against what may lie ahead.

III. PUBLICATIONS

It is pleasing to record that the official journal now has a net paid circulation of over 7,000, the largest readership of any veterinary publication in America. On this basis, the Board of Governors has recently approved an upward revision of advertising rates which should help to balance JOURNAL costs, which are now a major item of Association expense.

The regular journal should be made to carry itself through increased advertising, by controlling the size of the issues and by other measures. This can be done without sacrificing any of the increased interest or values which the publication now has for its readers. Further economies are indicated because of increased costs of paper, printing and everything that goes into the making of the JOURNAL, increases which have come about as an effect of the national defense program on almost everything that we buy.

The Research Journal.—The American Journal of Veterinary Research, which was launched less than one year ago, has had an excellent reception. It has a total circulation of 1,868, of which 1,846 is net paid. Most of the subscribers to date are AVMA members, to the number of 1,610. New subscriptions are being received steadily, although no major effort to broaden the subscription base has been made since the publication was first announced. Such an effort is to be made this fall, but already the research journal goes to subscribers all the way from Iceland to British South Africa.

There can be no doubt of the place the American Journal of Veterinary Research can occupy in the field of scientific medical literature. By sponsoring it, our association has assumed a great and exacting responsibility to the veterinary profession and to veterinary science. Its standards must be of the highest, and increasing diligence must be exercised to attain and maintain high editorial and scientific merit. To this end, it is most reassuring that a report has been made at this meeting on a proposal designed to furnish the scientific editorial supervision that the new publication must have.

From the budget standpoint, the research journal is somewhat of a liability, since it carries no advertising. From its very nature it is a far more costly publication than the official monthly journal. Expensive paper must be used to insure the proper reproduction of photomicrographs and other illustrations; research papers usually use a considerable number of illustrations, figures or tables; the printing composition of involved tables is costly in itself, and so on. As a result, this journal has

*Includes non-member subscribers to official journal and all subscribers to the research journal.

cost nearly $2\frac{1}{2}$ times as much as was estimated a year ago when first proposed. By increasing the circulation both among members and non-members, this publication may eventually support itself, but it must be doubted that it will ever increase Association income to any appreciable extent. The publication merits the support of every AVMA member as a subscriber.

The American Journal of Veterinary Research was designed to meet several needs: (1) to provide a suitable medium of publication for the growing number of technical papers offered by workers in veterinary research; (2) to give more prompt publication to scientific papers offered to the Association; (3) to relieve the publication load on the regular journal. The first two needs have been met, to some extent at least; the relief on our publication load is apt to be short-lived for the reason that the new journal is attracting more and more papers from veterinary scientists and others who formerly sought publication elsewhere. The immediate solution of this problem is not plainly evident, but may lie in more frequent issues (bimonthly instead of quarterly) whenever finances permit.

The 1941 Membership Directory.—This document was issued as of March 1, 1941, and appeared in print in April. It lists some 6,500 names, addresses and college affiliations of members; contains a complete roster of officers, committees and delegates for the year; also a complete list of presidents, secretaries, treasurers and honorary members, together with a list of the convention places since the Association was organized in 1863. Included also is the newly revised constitution, administrative by-laws and code of ethics adopted at Washington in 1940. It is a valuable reference document for members and is available to them at \$1.00 per copy; to non-members the price is \$3.00.

IV. VETERINARIANS AND SELECTIVE SERVICE

During the year the executive office was twice called upon to aid in collecting information pertinent to establishing the need and place for veterinarians and veterinary services as vital components for civilian welfare and for the national defense program. The first call related to hearings upon Senate Bill 783 (the so-called Murray Bill) which was concerned with exemption from military training for graduates and students in the medical fields. The second related to a survey made by the Selective Service officials to determine the civilian and military needs for veterinary services.

In each instance the central office sought the help of its members throughout the country, of its constituent associations and their officers, the deans of the accredited veterinary colleges, livestock sanitary officials and others. In each instance the response was prompt and effective. The aid rendered was invaluable and the results have been recorded at some length in the official journal. The executive office expresses its gratitude to the many individuals throughout the country who gave such effective help when it was needed.

V. WOMEN'S AUXILIARY & STUDENT LOAN FUND

The central office has continued to act as the agent and business office for the Women's Auxiliary, under the supervision of its officers,

in carrying on the details of the loans made to worthy and needy senior students whose applications are approved. This splendid work of the Auxiliary annually helps several students to complete their courses in veterinary medicine who might otherwise have financial difficulties. Nine seniors were so aided during the year past. The office also endeavors to look after collections of loans as they become due.

VI. STUDENT CHAPTERS

The eleven student chapters have continued to do excellent work as junior organizations of the AVMA. The programs which the chapters carry on during the year at regular stated meetings and social functions have become outstanding student activities. The parent association owes it to these chapters to cooperate in every way possible, to foster closer relationships between them and ourselves and to aid in furnishing selected or desired speakers.

The past year has demonstrated that present methods of distributing journals to student subscribers (bulk mailings to the student agents) is not entirely satisfactory. A new system is to be devised. Also, the present schedule of remittances from seniors who desire to apply for membership following graduation is unduly complicated and is to be simplified.

All of the accredited veterinary schools in the United States and Canada, except the University of Montreal, have chapters.

VII. EXECUTIVE BOARD ELECTIONS

As announced in the official journal, nominations and elections for two Executive Board districts (Nos. 6 and 8) have been conducted during the year. In District 6, W. L. Curtis of California succeeds I. E. Newsom of Colorado, and Ashe Lockhart of Missouri succeeds L. J. Allen of Oklahoma. The new members will take office at the conclusion of this annual session for five-year terms.

VIII. MAIL AND CORRESPONDENCE

Statistics of this sort are dry and perhaps meaningless to the average member, but they are an index of the routine work of the central office. During the past fiscal year (July 1, 1940, to June 30, 1941) nearly 150,000 pieces of mail went out from the central office. This included first class letter mail (average of about 1,500 monthly), official journals (average of 7,100 monthly) and miscellaneous items (average of 3,600 monthly).

During the year the central office received nearly 24,000 pieces of mail, or an average of 2,000 monthly.

IX. COMMENT

Grateful acknowledgment is made of the support and help received from the Association's officers, committees and members throughout the year and of the complete and loyal assistance of the office staff in carrying on the work of the Association. Without the aid of all those mentioned, the advancement of our association and the furtherance of its objectives would be impossible.

Respectfully submitted,
J. G. HARDENBERGH,
Executive Secretary.

PRESIDENT WIGHT: Gentlemen, you have heard the report of the executive secretary. What is your desire?

DR. HUSMAN: I move its acceptance and that it be referred to the executive committee.

... The motion was seconded by Dr. Schubel of Michigan ...

PRESIDENT WIGHT: Any discussion? It has been moved and seconded that the report of the executive secretary be accepted and referred to the Executive Board.

... The motion was put to vote and was carried ...

PRESIDENT WIGHT: Now, the report of the treasurer, Dr. Jacob.

... Dr. Jacob presented his prepared report. [See next page.] ...

PRESIDENT WIGHT: Thank you, Doctor. Gentlemen, you have heard the report of our treasurer. What is your desire?

H. H. BAUR (Louisiana): I move it be accepted.

... The motion was seconded ...

PRESIDENT WIGHT: It has been moved and seconded that the report of the treasurer be accepted.

DR. FLYNN: I would like to submit a question to the treasurer. I want to know how your funds are divided as to deposits, and where our funds are deposited.

DR. JACOB: The funds are divided, as I indicated awhile ago, into a journal fund and an AVMA fund. We have the regular AVMA fund, the AVMA special fund No. 2, the Salmon Memorial fund and the relief fund. The funds are deposited in the Continental-Illinois National Bank & Trust Company. The bonds of the Association are held in the safety deposit vault of the Central National Bank of Chicago, and under the control of the governing board.

DR. FLYNN: Are those funds bonded outside of the central association?

DR. JACOB: The bonds are registered.

DR. FLYNN: The funds are invested in bonds and registered bonds?

DR. JACOB: Yes.

DR. FLYNN: What I am getting at, is the cash in bonds, in government bonds, of some \$5,000?

DR. JACOB: Yes, the treasurer is bonded, but not the finances.

The way the funds have been running—you have reference especially to our checking account? That has been so close to the federal protection that I don't think the committee has considered it essential to bond that.

DR. FLYNN: One more question, one that refers to relief, \$3,000 relief. Is that drawing interest?

DR. JACOB: That is not drawing interest. That is part of the general fund. In other words, the fund of the AVMA owes that to relief. The AVMA is responsible for it and it is held as a separate item in the account, the financial account, and is available at any time for relief purposes. That is absolutely under the control of the Executive Board.

DR. FLYNN: It is \$3,000, in the item?

DR. JACOB: It is being used in the general

business of the Association, but is not drawing interest.

... Calls for question ...

PRESIDENT WIGHT: You have heard the report. Are you ready for the question? All in favor, signify by saying "aye"; those opposed, "no".

The motion is carried and the report is adopted.

So, gentlemen, I take this opportunity to thank you for your kind attention, and I wish we could dismiss, but I really think we ought to do a little more business, if we possibly can.

We are down to the reports of committees. History—Dr. Merillat.

... Dr. Merillat presented the prepared report of the special Committee on History [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: Thank you, Dr. Merillat. You have all heard the excellent report on history, given by Dr. Merillat. What is your pleasure?

DR. HUSMAN: I move its adoption and that the Committee be continued.

... The motion was seconded by Dr. Schmidt of Minnesota, was put to vote and was carried ...

PRESIDENT WIGHT: Is Colonel Kelser ready to report on rabies? We will now hear the report of the Committee on Rabies, by Colonel Kelser.

... Colonel Kelser presented the prepared report of the special Committee on Rabies [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: You have heard the report of the special Committee on Rabies. What is your pleasure?

... It was voted, on motion by Dr. Krill, seconded by Dr. Husman, that the report of the Committee be adopted, and that the Committee be continued ...

PRESIDENT WIGHT: With your permission we will move back to one report under standing committees, on veterinary biological products. Dr. Hadleigh Marsh can not be here, but Dr. Frank Breed is going to read the report.

FRANK BREED: Mr. President, Members of the House: First of all, I desire to express to you Dr. Marsh's regrets in not being able to be present. He had hoped to be here.

... Dr. Breed then presented the prepared report [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: Gentlemen, you have heard the report presented by Dr. Breed. What is your pleasure?

... It was voted by Dr. Sigler that the report be adopted. Seconded by Dr. Husman ...

PRESIDENT WIGHT: It has been moved and seconded that this report be adopted. Any remarks? If not, all in favor say "aye"; contrary, "no".

... The motion was put to vote and was carried ...

PRESIDENT WIGHT: Dr. Tom Sigler, we would be glad to have you read your report as representative of the Advisory Board of the Horse and Mule Association of America.

... Dr. Sigler presented his prepared report [to be published in Nov. 1941 issue] ...

DR. SIGLER: I also have here a list of the

Financial Report—M. Jacob, Treasurer

SALMON MEMORIAL FUND

July 1, 1940, Through June 30, 1941

Balance in Fund June 30, 1940.....		\$ 9,984.16
Bank Balance June 30, 1940.....	\$ 856.79	
RECEIPTS		
Interest on U. S. Treasury Bonds.....	\$ 233.75	
5% Liquidating Dividend—Trustees East		
Tennessee National Bank.....	36.68	
	\$ 270.43	
Transferred from JOURNAL Fund.....	117.38	
Total Receipts	387.81	
	\$1,244.60	
DISBURSEMENTS		
None		
Bank Balance June 30, 1941.....	\$1,244.60	
Increase for Period.....		\$ 9,984.16
		387.81
BALANCE IN FUND JUNE 30, 1941.....		\$10,371.97
INVESTED AS FOLLOWS		
U. S. Treasury Bonds at Cost		
(Par Value \$9,000.00) June 30, 1941.....	\$9,127.37	
Demand Deposit—Continental-Illinois National		
Bank and Trust Company.....	1,244.60	
		\$10,371.97

DETAIL OF U. S. TREASURY BONDS

21319	K Series 1955-1960 2%	Treasury Bonds.....	\$ 500.00
301	A Series 1956-1959 2%	Treasury Bonds.....	5,000.00
425	B Series 1956-1959 2%	Treasury Bonds.....	500.00
2449	K Series 1956-1959 2%	Treasury Bonds.....	1,000.00
2450	L Series 1956-1959 2%	Treasury Bonds.....	1,000.00
2451	A Series 1956-1959 2%	Treasury Bonds.....	1,000.00
TOTAL			\$ 9,000.00

AVMA SPECIAL FUND. NO. 2

July 1, 1940, Through June 30, 1941

Balance in Fund June 30, 1940.....		\$ 5,137.81
Bank Balance June 30, 1940.....	\$ 68.75	
RECEIPTS		
Interest on U. S. Treasury Bonds.....	137.50	
	\$ 206.25	
Disbursements for Period.....	137.50	
Bank Balance June 30, 1941.....	\$ 68.75	
Increase for Period.....		\$ 5,137.81
Balance in Fund June 30, 1941.....		\$ 5,137.81
INVESTED AS FOLLOWS		
U. S. Treasury Bonds at Cost (Par Value		
\$5,000.00) June 30, 1941.....	\$5,069.06	
Demand Deposit Continental-Illinois National		
Bank and Trust Company.....	68.75	
		\$5,137.81

DISTRIBUTION OF ASSETS

Cash	Bonds at Cost	Cash
\$68.75	\$5,069.06	\$5,137.81

(357)

AVMA RELIEF FUND

July 1, 1940, Through June 30, 1941

Bank Balance June 30, 1940.....	\$3,349.30
Receipts for Period.....	
	<u>\$3,349.30</u>
Disbursements for Period.....	
	<u>\$3,349.30</u>
BANK BALANCE JUNE 30, 1941.....	\$3,349.30

JOURNAL, AVMA AND SALMON MEMORIAL FUNDS

July 1, 1940, Through June 30, 1941

Bank Balance June 30, 1941.....		\$ 7,028.66
RECEIPTS		
Received from Secretary—		
JOURNAL Fund	\$41,326.97	
AVMA Fund	25,544.60	
		<u>\$66,871.57</u>
Interest on U. S. Treasury Bonds—		
Salmon Memorial Fund.....	\$ 233.75	
AVMA Fund	940.00	
AVMA Fund Special No. 2.....	137.50	
		<u>1,311.25</u>
Liquidating Dividend—Trustees East Tennessee National Bank—		
AVMA Fund	\$ 122.44	
Salmon Memorial Fund.....	36.68	
		<u>159.12</u>
Refund—New York Fair.....		1,005.38
		<u>69,347.32</u>
Total Receipts		<u>\$76,375.98</u>
DISBURSEMENTS		
JOURNAL Fund	\$22,471.00	
AVMA Fund	49,017.45	
AVMA Fund Special No. 2.....	137.50	
		<u>71,625.95</u>
Total Disbursements		<u>71,625.95</u>
Bank Balance June 30, 1941.....		\$ 4,750.03
Revolving Fund in Hands of J. G. Hardenbergh, Executive Secretary		<u>2,000.00</u>
Total Cash Resources—All Funds.....		\$ 6,750.03
U. S. Treasury Bonds at Cost (Par Value \$32,000.00) June 30, 1941.....		<u>31,499.63</u>
		<u>\$38,249.66</u>
Less: Amounts Due		
Salmon Memorial Fund.....	\$1,244.60	
AVMA Fund Special No. 2.....	68.75	
AVMA Relief Fund.....	3,349.30	
		<u>4,662.65</u>
Total Assets—JOURNAL and AVMA Funds June 30, 1941		<u>\$33,587.01</u>
Total Assets June 30, 1940.....		<u>36,253.45</u>
DECREASE IN ASSETS FOR PERIOD.....		<u>\$ 2,666.44</u>

DISTRIBUTION OF ASSETS

	Cash	Bonds at Cost	Total
JOURNAL Fund	\$79,414.84	\$31,499.63	\$110,914.47
AVMA Fund (Overdraft).....	(77,327.46)		(77,327.46)
TOTALS	\$ 2,087.37	\$31,499.63	\$ 33,587.01

affiliated clubs of Indiana. You might want to look that over.

PRESIDENT WIGHT: You have heard Dr. Sigler's report. What action shall be taken?

... It was moved, on motion by C. C. Von Gremp of Georgia, seconded by I. S. McAdory of Alabama, that Dr. Sigler's report be adopted ...

PRESIDENT WIGHT: We will come back to this

room to hold our business session at 8:00 tonight.

If there is nothing further to come before this meeting, I will entertain a motion to adjourn.

... It was voted, on motion by Dr. Husman, seconded by Dr. McAdory, that the meeting stand adjourned ...

... The meeting adjourned at 5:00 p. m.

Second Session of the House, Monday Evening, August 11

The meeting was called to order at 8:30 p. m. in Murat Theatre, President Wight presiding.

PRESIDENT WIGHT: Dr. Mundhenk, are you ready to read your report? This is the report of the Committee on Proprietary Pharmaceuticals.

... Dr. Mundhenk read the prepared report [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: You have heard the report. What is your pleasure?

DR. KRILL: I move it be accepted.

... The motion was seconded by Mason Weadon, was put to vote and was carried ...

GEORGE M. POTTER (Maine): Mr. President, it seems from the report of this committee they have not had the facilities for carrying on the work as effectively as they might have, and I think the Association should take account of that.

I would move that the Board of Governors, or whatever body is concerned, should take effective steps to implement this committee.

HUGH HURST (Utah): I will second that motion.

PRESIDENT WIGHT: It has been moved and seconded to recommend to the Board of Governors or Executive Board, perhaps, that they should take steps to arrange to provide the necessary working materials so that this committee can function as it feels that it could and ought to do.

Any questions?

DR. STEWART: Is the motion made as a recommendation?

DR. POTTER: Yes.

PRESIDENT WIGHT: The way I got it is that it is a recommendation from this body to the Executive Board. Of course, all those things have to be worked out from a budgetary standpoint.

Is there anything you want to say further on that? I will be glad to put the motion.

... Calls for question ...

... The motion was put to vote and was carried ...

PRESIDENT WIGHT: Is Dr. Kernkamp here?

... Dr. Kernkamp presented the prepared report of the special Committee on Nomenclature of Disease and Vital Statistics [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: Thank you. Gentlemen, you have heard this excellent report given by Dr. Kernkamp.

DR. HUSMAN: I move its adoption, and that the Committee be continued.

... The motion was seconded by Dr. McAdory of Alabama, was put to vote and was carried ...

DR. WIGHT: Cliff D. Carpenter, Committee on Poultry Diseases.

... Dr. Carpenter presented the prepared report [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: You have heard the report by Dr. Carpenter, chairman of the special Committee on Poultry Diseases. What is your pleasure with this report?

... It was voted on motion by Dr. Hurst, seconded by Dr. Husman, that the report be accepted ...

PRESIDENT WIGHT: We are now up to the business of 9:00. At 9:00 we were to take up a special order of business, to vote on Dr. Jakeman's recommendation on the research council. What is your pleasure on that? Is Dr. Flynn here?

DR. FLYNN: I would suggest that Dr. Jakeman give us a brief outline of his proposition again, so it will be refreshed in the minds of the delegates.

PRESIDENT WIGHT: Will you be kind enough to do that, Dr. Jakeman?

DR. JAKEMAN: Do you wish me to go over the same ground that I did this afternoon, or merely to repeat the recommendations made to the Executive Board and accepted and approved by them?

MASON WEADON (District of Columbia): Just a résumé.

DR. JAKEMAN: Mr. President, do you wish that I read the entire report?

PRESIDENT WIGHT: I hope the group will hear it. I really think it is very important.

DR. JAKEMAN: Well, the report as submitted to the Executive Board consisted of eight pages of typewritten copy. I assume that you are all too uncomfortable this evening to listen to the reading of the eight pages, so I will try to give you a résumé. I think this afternoon I read the first page to give you an idea of how this research council came into the picture in connection with the American Journal of Veterinary Research, so if there are no objections, I will read this first page:

... Dr. Jakeman read excerpts from the report and commented thereon ...

DR. FLYNN: What was the proposed size of this scientific council—the number?

DR. JAKEMAN: That, I believe, is another thing about which the Council itself will have more judgment at the end of a year than at the start, but it consists of 14 men at the present time. The classification is as follows:

- 1) Anatomy and Histology
- 2) Physiology and Pharmacology
- 3) Biochemistry and Animal Nutrition
- 4) Large Animal Surgery

- 5) Small Animal Surgery
- 6) Large Animal Medicine
- 7) Small Animal Medicine
- 8) Veterinary Hygiene
- 9) Bacteriology (Immunology and Biologic Therapy)
- 10) Virus Diseases
- 11) X-Ray
- 12) Pathology
- 13) Parasitology

We also have provided a member-at-large representing Canada and Canadian research.

The classification, of course, might well be changed by the Executive Board on the recommendation of this council. If this is approved by the House and the men can have an organizing meeting here, elect their officers, and make plans for getting this thing underway, they might decide that some of these subjects need further classifications. In other words, I am trying to make this proposal as the ground work and it can be modified as it goes along, in the interests of making it successful.

DR. POTTER: Mr. President, it appears that the Executive Board have given this matter careful consideration. I think that we should give them the green light and let them go ahead with it, and I move the acceptance of this proposal of Dr. Jakeman as he has presented it.

... The motion was seconded by Dr. Weadon, and Dr. Husman. . .

PRESIDENT WIGHT: It has been moved and seconded that the proposal of Dr. Jakeman, just presented, be accepted by this body. Are you ready for the question?

DR. FLYNN: Mr. President, I would like to ask one or two more questions before I vote on this matter.

As I understand it—I tried to follow Dr. Jakeman very carefully—this proposal is suggesting to us that we approve a plan whereby the Association finances this proposition until such time as the funds can be raised through fellowships. Am I right?

DR. JAKEMAN: Yes.

DR. FLYNN: Without any definite sum or any idea of what this expense might be?

DR. JAKEMAN: That would be provided by the Committee on Budget, the same as any other committee that is in existence in the Association, a definite sum appropriated for their use. They would not be given a free rein. There would not be much expense. They would not be meeting or incurring other expenses except postage and expenses incidental to correspondence. It is not going to be costly.

DR. FLYNN: On this point I wanted to get clear, that is that this matter would be submitted to the Committee on Budget and they will suggest an appropriate amount and that will be passed upon both by the Executive Board and by the House of Representatives?

DR. JAKEMAN: That is the way all committees which require money for operating are provided. They make a request to the Association for \$100 or \$200, whatever they consider necessary to cover their expenses, and that is submitted to the Executive Board and to the Committee on Budget. The budget, of course, is submitted in turn to the House.

PRESIDENT WIGHT: Does that answer your question, Doctor?

DR. FLYNN: Yes, it does.

PRESIDENT WIGHT: Now, are you ready to vote on this proposal?

... The motion was put to vote and was carried . . .

PRESIDENT WIGHT: I would like to call on Dr. N. S. Mayo, who is the chairman of the Committee on Education.

... Dr. Mayo presented the prepared report of the Committee on Education [to be published in Nov. 1941 issue] . . .

PRESIDENT WIGHT: Gentlemen, you have heard the excellent report of the Committee on Education.

DR. WEADON: Mr. Chairman, at this point I have a suggestion to make to the Committee on Education. Colonel Kelsner, in handling some papers which dealt with the exemption of veterinary students and veterinarians from Selective Service, came across a bulletin issued by the Department of Education of the Interior Department, and in that bulletin there was an official classification of professional and engineering schools, including medical, osteopathic, etc. This bulletin was used in some selective draft organization and by selective draft committees in deciding who should be exempted and who should not, so I would like to make a motion that the Committee on Education see to it that the veterinary schools, the properly accredited veterinary schools, are listed in that publication. I make that as a motion.

PRESIDENT WIGHT: Is there a second to that motion?

DR. MAYO: It is not necessary to make a motion. The Committee will attend to that. We appreciate the suggestion very much. We did not know there was such a publication, but it will be attended to.

PRESIDENT WIGHT: Now, then, voting on the acceptance of this splendid report.

... The motion was seconded by Dr. Sigler, was put to vote and was carried . . .

PRESIDENT WIGHT: Is Dr. Mark Welsh here? We will have the report of the Committee on Public Relations by Dr. Mark Welsh.

... Dr. Welsh presented the prepared report [to be published in Nov. 1941 issue] . . .

PRESIDENT WIGHT: We have this excellent report from the Committee on Public Relations. Do you wish to adopt this report?

... It was voted, on motion by Dr. Barnette, seconded by Dr. Zepp, that the report be adopted . . .

DR. POTTER: Mr. President, I wish to mention a matter that pertains to both the previous reports. This afternoon we adopted the suggestion of Dr. Jakeman that we give a prize for outstanding humanitarian acts, connected with veterinary work. That will attract the attention of the Boy Scout organization. Now, I have had to examine quite a good many Boy Scouts on first aid to animals, and I have been very much disturbed by the character of questions that have been asked them.

It seems to me that our committees on education and on public relations should give some consideration to that program of the Boy

Scouts, and improve very greatly the character of the work that is offered there.

I will not make a motion, but I think simply calling the attention of the education committee and of the public relations committee to this matter would be adequate to correct that situation.

PRESIDENT WIGHT: Thank you.

C. F. SCHLOTTHAUER (Minnesota): I would like some extra information on that. I, too, have been giving examinations to Boy Scouts and I, too, was disturbed with the questions that have been asked. I brought the matter up before the local council at a time when some of the national members were present, and they have asked me to rewrite the questions. I have rewritten the pamphlet at the present time. I have the rewritten manuscript in my brief case and I plan to present it to the other members of the committee. I think it should be O. K'd by the committee and by the American Veterinary Medical Association before it is published for use by the Boy Scouts.

The American Medical Association O. K'd the handbook for first aid to humans, and I think we should do the same regarding animals.

PRESIDENT WIGHT: Dr. Birch, will you give your report from the Committee on Bang's Disease?

... R. R. Birch presented the prepared report [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: The excellent report of Dr. Birch is now before you. What disposition do you want to make of it?

DR. IVENS: I move we accept it.

... The motion was seconded by Dr. Weadon, was put to vote and was carried ...

PRESIDENT WIGHT: I will ask if Dr. Axby is in the room. (Not here.)

Dr. Baker is not here.

Is Dr. Bergman here?

H. D. BERGMAN (Iowa): Mr. Chairman, the Sub-Committee on Veterinary Items, National Formulary Committee, does not have a formal report to present at this time. The work of the Committee runs over ten years. Much of the work is in a formative state. I will say that progress is being made and we will have a formal report to present next year.

PRESIDENT WIGHT: Thank you, Dr. Bergman. Is Dr. Biester here? (Not present.)

Dr. Ward Giltner, I understand, is not here, but Dr. Hardenbergh has his statement regarding his work in behalf of the American Association for the Advancement of Science.

... Secretary Hardenbergh read the prepared report of Dr. Giltner [to be published in Nov. 1941 issue] ...

PRESIDENT WIGHT: You have heard the reading of the report of Dr. Ward Giltner, who represented this association at the meeting of the American Association for the Advancement of Science.

... It was voted, on motion by Dr. Sigler, seconded by Dr. Husman, that the report be accepted ...

PRESIDENT WIGHT: At this moment I want to thank every one of the chairmen of committees, and members of committees, for the splendid and excellent support you have given

this program this year. I want to extend that to the men who are unable to be here, whose reports were read for them.

DR. BAUR: Are we about to adjourn for the night?

PRESIDENT WIGHT: That was my thought.

DR. BAUR: I want to bring something before the meeting before you close. If you will notice the program for Thursday, we have two things on the program at 7:00. One is the program put on for everybody and the other is the session of the House of Representatives. Why not change one meeting a little ahead of the other? I make that as a motion, that we move our House of Representatives' meeting to an hour other than 7:00 p. m.

... The motion was seconded by Dr. Sigler ...

PRESIDENT WIGHT: There is a motion to have the next meeting of the House at a different time. Any discussion?

DR. HUSMAN: Mr. Chairman, I believe the Committee on Program exercised every precaution to take care of us while we were here. I might say with some pride, I have not missed a meeting of the House of Representatives.

I am arguing against the motion. I think that we should carry out the program just as outlined in the book to prevent any confusion. Those who want to can attend the Red, Hot and Blue Show—I am red and hot already—I guess I will be blue.

DR. IVENS: Let's hear Dr. Hardenbergh's explanation.

SECRETARY HARDENBERGH: If you will permit me to speak on that, when the program was organized it was fully discussed with the committee. Originally we planned to stage the show at 9:00, but 7:00 was finally decided upon in order to get people here early and in the proper mood for the event.

I think the House of Representatives' meeting is going to be finished in time for the show.

PRESIDENT WIGHT: The motion is to change the hour. Those in favor of changing the hour, say "aye"; opposed, "no." The motion is lost.

DR. FLYNN: Mr. Chairman, I have some amendments that I would like to read before this body. Of course, they can not be acted upon in this meeting. In order to be acted on a year hence, it is necessary to read them now. I will read the amendments.

If you will take your copy of the constitution and by-laws and turn to page 6, article IX, I would like to add to that article a new section to be numbered section 12, termed "Election": "The House shall elect a chairman annually at the close of its last meeting held during a regular session of the Association. He shall be a duly elected member of the House of Representatives. He shall be elected by a majority vote of said House and shall hold office until his successor is elected and installed."

In other words, instead of having the president preside over the House, we will elect our chairman from our own body. The president of the Association is a member of the Executive Board, and in the past the House of Representatives has been presided over by a member of the Executive Board, which I don't

believe ought to obtain. However, that is a matter to be decided a year hence.

Then, in order to conform to that, we turn to page 3, section 3, article II, paragraph a, and strike that out. That is just to conform with this presentation that I have offered, the amendment that I have offered, that is, the duties of the president. One of his duties is to preside over the House of Representatives. Merely strike that out.

Then if you will turn to page 1, article V, section 5, of the constitution, I would suggest that it be amended to read as follows: "Two members of the Executive Board and the chairman of the House of Representatives shall constitute the Board of Governors, who shall have charge of the administrative affairs of the Association between the regular meetings of the whole Board. It shall consist of the president, the president-elect and the chairman of the House of Representatives, and shall hold meetings at such times and places as the chairman may direct.

"It shall make an annual report of its actions to the whole Board which shall be included in the records of the Executive Board."

In other words, I believe that the House of Representatives, which represents the entire membership of the Association and comprises a delegate from each state of the 48 states and the District of Columbia, as well as Canada, should have a voice on the Board of Governors. Consequently, I am offering this amendment, which shall be submitted to the Executive Board and voted on a year hence.

PRESIDENT WIGHT: In the meantime must it be published in the JOURNAL?

DR. FLYNN: It must be published 60 days before the next meeting.

DR. SCHMIDT (Minnesota): Dr. Flynn, in section 5 of article V it says: "It shall be composed of the president, the president-elect and the chairman of the Executive Board." You purposely left out the chairman of the Executive Board?

DR. FLYNN: Yes, just substituting the chairman of the House of Representatives for the chairman of the Executive Board. In other words, two executive members and the House of Representatives' member on the Board of Governors.

DR. CUSHING: Mr. President, I am sitting in the House this year for the first time. After I was appointed to represent the membership in the State of New Jersey, I made an effort to try and find out some of the things that were coming up before this house of delegates, so I could talk it over with my constituency. I was unable to secure anything except generalized information. We have a democratic form of government here. It seems to me that it is only fair to the membership at large and to the delegates that some way be formulated so that at least the main objects of business that are going to be brought before the House can be discussed by the membership at large.

In view of that fact, I move, Mr. President, that the president appoint two members from the House and two members from the Executive Board and have this committee report to us next year to see if some plan can not be

formulated whereby this information can be put into the hands of the delegates in time for them to give it adequate study.

This afternoon the comprehensive voluminous report on food was presented, and all of us were "yes men." It was an impossibility for us to give that adequate study, and it seems to me that we should have given that thing some study. We voted the food committee full power and a blank check.

I am not casting any reflections, not the slightest, but it seems to me a thing of that prominence should have received more consideration.

... The motion was duly seconded ...

PRESIDENT WIGHT: It has been moved and seconded that the president appoint two members of this body and two members of the Executive Board to compose a committee which will study the question and report back next year as to what arrangements can be made, so that the delegates to the House of Representatives can have more information on what is to come up than they have had in the past. Is there any discussion?

DR. SCHMIDT: Mr. President, I would like to make a suggestion; I may be entirely wrong, but I believe it would expedite matters. We have been listening to reports ever since this afternoon, and I will step ahead a little further: The executive secretary last winter sent out a questionnaire to the chairmen and secretaries of the different sections, asking if they would like to have these section meetings staggered. We were all in favor of staggering these meetings, but it is impossible to do it because too much time would be taken up. In this matter of the House of Representatives, it seems to me that these reports could be printed and sent to every delegate about a month before the meeting. Each delegate could read the reports. If he isn't interested enough to read them, he isn't doing any good sitting here.

Then, as each report would come up, the chairman of that committee could preside and if there are any questions to be asked by the House, we could ask them, because we would have studied the respective reports, and the action could be taken immediately. Where we have been listening to these reports for 45 minutes, we could deal with them in three or four minutes.

If any important paper comes up, we could ask to have it read again. By that method we could save two or three hours. As it is, the House of Representatives takes up too much time. Last year we worked two nights.

That may not be a good idea, but to me it looks very good.

PRESIDENT WIGHT: Dr. Cushing, do you accept that?

DR. CUSHING: I accept it.

PRESIDENT WIGHT: I think it would be a good thing for the organization.

... The motion was put to vote and carried ...

DR. IVENS: If, as Dr. Flynn has suggested, the chairman be appointed from the legislative body, who is going to represent the state from

which the chairman is appointed? He can't vote unless it is a tie vote.

That is a question as a point of information.

DR. KRILL: With the revolving membership we have, how could we avoid electing someone who might not be a delegate the next year?

PRESIDENT WIGHT: How about that, Dr. Flynn?

DR. FLYNN: You would not elect a man whose term ends with this meeting.

PRESIDENT WIGHT: They all end, don't they?

DR. IVENS: No, some are two years.

DR. FLYNN: You would not elect a man whose term terminates with this.

DR. IVENS: My point is, who would represent his state after he is made chairman? He would not vote except in a tie.

DR. FLYNN: He would not have a vote without calling someone to the Chair and voting.

DR. SCHMIDT: In that respect, I believe if

the chairman is selected from the body, he has a vote, just as the speaker of the House in our national Congress has a vote. The presiding officer of the Senate has no vote because he is the vice-president of the United States. The House picks its own speaker and he has a vote. So, if we would elect a chairman, he would have a vote.

DR. IVENS: That answers my question, Mr. Chairman, because if my state sends its delegate, it might not be able to send an alternate and delegate both.

PRESIDENT WIGHT: I hope we have it set. It will be interesting to observe the results.

Now, is there anything further for this evening before we adjourn?

This body will meet at 7:00 o'clock in the Candidates Room, unless otherwise notified—7:00 Thursday evening. It should not be a long session.

... The session adjourned at 10:40 p. m.

Third Session of the House, Thursday Evening, August 14

The meeting was called to order in the Band Room at 7:30 p. m., President Wight presiding.

... Roll Call by Dr. Newsom showed a quorum present ...

PRESIDENT WIGHT: Gentlemen, we have called the roll and a quorum is declared present.

There are some more matters that Dr. Newsom, chairman of the Executive Board, has to present, and I think that these should come first. Dr. Newsom.

Site of 1943 Meeting

DR. NEWSOM: Gentlemen, the Executive Board recommends that the meeting in 1943 be held in St. Louis, Missouri.

PRESIDENT WIGHT: You have heard the recommendation. I presume we should act on that separately. What is your pleasure, gentlemen?

DR. FLYNN: I move that we adopt the report of the Executive Board.

... The motion was seconded by Dr. Mason Weadon ...

DR. HUSMAN: On the question, Mr. Chairman, I believe it is about time to go to Canada. I was originally a Cincinnati man. I understand that there has been a petition circulated among the ladies and that they voted almost two to one to go to Canada.

With the world situation as it is today, I believe we ought to go to Canada. We have been to St. Louis. Therefore, I am opposing the motion on that ground.

If you will pardon me for getting up again, here is the petition from the Women's Auxiliary: "We, the undersigned members of the Women's Auxiliary of the AVMA, would be in favor of holding the convention in Toronto, Canada, in 1943."

It is signed almost two to one for Canada.

PRESIDENT WIGHT: We are discussing the motion that was made and seconded regarding the place of the next meeting.

It has been moved by Dr. Flynn, and seconded by Dr. Weadon, that we approve the recommendation of the Executive Board. That is the motion before the house.

DR. POTTER: Mr. President, I object, as a matter of principle, to choking off discussion on a thing of this kind. I know you haven't done so, but the motion does. I wish to discuss from that standpoint.

We know that it might have been very hot in Washington. We know that it will be as hot in St. Louis. It has been hot here. I would like for once to go to a place where it might be cool, and then from the standpoint of Canada, as the gentleman said, I think we ought to go there.

DR. ARBURUA (California): It won't be hot in San Francisco.

DR. WEADON: Mr. President, I am holding no particular brief for St. Louis. I have spoken to no one, but if I may answer Dr. Husman, last Monday—to be frank with you—I was also very much in favor of going to Toronto. But, inasmuch as the meeting is two years away, and Canada is at war, we are not quite sure just what is going to happen. Secondly, we all know it is going to be hot in St. Louis; it always has been, but they have several big hotels there, one in particular that has 2,500 rooms and each one is air-conditioned. So, primarily, as far as the weather is concerned, it really won't disturb us in any degree whatsoever. Of course, we can't get away from the fact that St. Louis is the center of the United States, and since our object in having meetings is to have a good program, with many men in attendance, I think it would be better judgment to choose St. Louis.

Also, if I am not mistaken, you could call Toronto an eastern city in comparison to St. Louis—and if I am not mistaken the next meeting following Toronto would be in the East, if I am familiar with the geography.

DR. HUSMAN: In the South.

DR. WEADON: Probably in the Southeast, but that is a thought, and as far as the weather is concerned, and due to the uncertainty, it

may be well to go to St. Louis this time. If it weren't for the war, I would be heartily in favor of it. I think we can put on a much better meeting and much more interesting program in St. Louis, which is really the thing that counts.

DR. KRILL: I am wondering if the Executive Board has taken this up quite thoroughly. I wonder if they may want to express their reason for recommending St. Louis.

DR. NEWSOM: Well, I don't know that I can make any particular argument in favor of St. Louis. I believe you understand the means by which we arrive at this decision. Four cities, as you know, were considered. Four cities were recommended by the exhibitors' committee. Three of them were visited by our secretary. We had reports on these four: St. Paul, Minnesota; Cincinnati, Ohio; St. Louis, Missouri; Toronto, Ontario, Canada.

Then we argued the point very little. We took a ballot and this is the result of the ballot.

I don't know that I should say anything beyond that. If individual members of the executive committee want to discuss it further, well and good. I have no particular arguments, at least I don't believe I am in a position to make any particular arguments for St. Louis. It is merely that St. Louis got the majority of votes in the Executive Board.

DR. BARNETTE: Is there a motion to adopt? I want to second the motion and say this: I think St. Louis is able to take care of us. They have facilities to take care of us, and I would like to see the meeting there.

DR. WEADON: Mr. President, may I ask—I don't know, I am asking for information—what are the hotel facilities in Toronto as compared with St. Louis, where I understand there are 2,500 air-conditioned rooms in one hotel alone, and all the exhibits and all the meetings would be under the same roof.

PRESIDENT WIGHT: There are ample hotel facilities in Toronto.

DR. NEWSOM: Of course, we heard representatives from all these cities, too, as you know, not only the veterinary representatives, but the commercial representatives from all four of these cities. We were assured that there are ample hotel facilities in all four of these cities and we were assured that in St. Louis, at least, the hotels are all air-conditioned. That was not told us about St. Paul, or Toronto. I think the inference was they do not need it, or something of that sort. However that may be, we were definitely assured by the St. Louis aggregation that all of our facilities—meeting rooms, hotel rooms, and everything else—would be air-conditioned.

I don't know that I should say this about Toronto, but it was told us that the exhibitors felt there would be no difficulty getting their material over, but a little difficulty getting it back. In other words, the trouble does not come from the customs officers in Canada, but from the customs officers of the United States. They said that would not be a very serious handicap, but they thought it might hinder easy transfer of exhibits. They did not seriously object to Toronto on that account; they merely mentioned that fact, that in going to

other conventions in Canada they had experienced some difficulty in getting their exhibits back.

DR. SCHMIDT (Minnesota): St. Paul has also put in a bid for the convention and I would like to make a substitute motion that St. Paul be considered, if that is not out of order.

PRESIDENT WIGHT: The procedure has been moved and seconded that St. Louis will be the city, as it was recommended by the Executive Board. We have been discussing it.

If anyone else wants to discuss it, we shall be glad to hear from him.

DR. WITT (Nebraska): St. Louis is too hot and Canada is too cold.

DR. SCHMIDT: Some of the hotels in St. Paul are air-conditioned.

DR. WEADON: Is the auditorium?

DR. SCHMIDT: No. It is the Municipal Auditorium. It is approximately a distance of a thousand feet, on the river bank of the Mississippi. There are parking places all around that neighborhood, because it was built to take care of large crowds. In fact, this auditorium is so large that they can hold all the meetings on one floor if they wish—no running up and down stairs. The clinics can be held in the basement. The banquets can be held there. The hotels will take care of the banquets, and the St. Paul association has assured us that they would put on an ice revue as entertainment.

That has nothing to do with the veterinarians, but it is an awfully nice feeling to be able to take in an ice revue in the middle of the summer, and our ice revues there are something worth seeing.

Not only that, within less than 30 minutes you can drive in from any cabin or cottage around our lakes, so that if you want to take your family up there, we have accommodations for your families where the cost does not run so high. You can go up to those lakes and rest and get back to nature, wash your feet in that cold rippling water like you did when you were boys, and really enjoy life for a week or so. You can go to sleep in the cool evening of our lake country, and go to sleep with the sighs of the pine trees and really enjoy life. Wake up in the morning by having a squirrel, for instance, just drop an acorn down the roof of your cottage and let it roll down. Who would want anything nicer than that?

Gentlemen, we have everything for you. We are preserving 10,000 virgin lakes in the playground of America, and are inviting you to enjoy that. It is there for you. We hope you will consider our bid and come.

PRESIDENT WIGHT: It has been moved and seconded, as a substitute motion, that St. Paul be the city. Any more discussion on that substitute motion? Shall we vote on that?

DR. FLYNN: Mr. Chairman, I believe that is truly not a substitute motion, merely substituting one city for another. It is not strictly a substitute motion.

PRESIDENT WIGHT: How about amendment?

DR. FLYNN: It was given and the records show it as a substitute motion. Probably most of the delegates have the privilege of voicing their own personal sentiments as to where

they would like to go. I, fortunately or unfortunately, am instructed, and my instructions are to see that this convention goes to St. Louis. When I made this motion to adopt the report of the committee, or the Executive Board, rather, they reported that it was the sense of the Executive Board that the meeting be held in St. Louis. Of course, I am carrying out my instructions from the Missouri state association, and I am in support of that motion.

PRESIDENT WIGHT: I think we will vote on Dr. Schmidt's motion. All in favor of St. Paul say "aye"; contrary, "no."

The Chair is undecided.

DR. BARNETTE: Mr. Chairman, I may be wrong, but how about this area plan that was set up?

PRESIDENT WIGHT: All of the cities considered are in the same zone. All right, the secretary will call for the voting on the motion to go to St. Paul.

SECRETARY HARDENBERGH: Do you want a roll call vote, Dr. Wight?

DR. WEADON: I make a motion that you give us the opportunity to say what city we want to go to on roll call.

DR. CUSHING: Is that our vote, one delegate to have so many and other delegates to have other votes?

DR. HUSMAN: Mr. Chairman, a substitute motion, properly seconded, called for a vote. The Chair is undecided. That brings it to a roll call.

DR. NEWSOM: Gentlemen, I am under the impression that the substitute motion requires a two thirds vote. I think that is correct. It is either two thirds or three fourths.

PRESIDENT WIGHT: It is a question whether it is assumed a substitute motion.

SECRETARY HARDENBERGH: Yes, it is.

DR. FLYNN: It is up to the Chair to rule whether the motion is in order, or not.

PRESIDENT WIGHT: I rule it in order.

DR. FLYNN: Then I move to table it.

DR. SCHMIDT: I move to make my motion an amendment. I would like to stay in this fight for St. Paul because we really can give you a good time and it is not going to be awfully hot there. We will give you the breezes along the lakes there. You can really enjoy life there.

PRESIDENT WIGHT: Dr. Kelser, will you speak on the question of whether this can be a substitute motion?

DR. KELSER (Veterinary Corps): If you are following Roberts' *Rules of Procedure*, it can be a substitute motion. A substitute motion takes precedence over the regular motion, and in this case requires majority vote only.

PRESIDENT WIGHT: I will accept that. But, each vote counts as many as that man represents. For instance, two or three. Is that right?

SECRETARY HARDENBERGH: That is right.

PRESIDENT WIGHT: Those who vote "yes" will be in favor of going to St. Paul. Those who vote "no" don't say where they are going.

... A roll call vote by states was taken ...

SECRETARY HARDENBERGH: Mr. Chairman,

according to the voting strength of the associations, 84 votes were cast:

Total votes "yes" 36

Total votes "no" 48

PRESIDENT WIGHT: The motion is lost.

Now then, we go back to the original motion we have discussed. There has been a motion made and seconded that the convention go to St. Louis, as recommended by the Executive Board. We have discussed it. Does anyone else want to discuss it? If not, we will start to vote on that and I don't want to hurry anybody, but I will ask for those in favor of going to St. Louis to say "yes"; those who do not wish to go to St. Louis say "no."

The Chair is undecided. I will ask for the roll call, please.

... A roll call vote by states was taken ...

DR. BAUR: I want to change Louisiana. I misunderstood. I want to put "no" instead of "yes."

SECRETARY HARDENBERGH: Mr. Chairman, on this ballot, 86 total votes were cast:

Total votes "yes" 47

Total votes "no" 39

PRESIDENT WIGHT: The majority votes for St. Louis. Therefore, the motion is carried.

DR. SCHMIDT: Mr. Chairman, it seems as though since the substitute motion is made, it must be voted on whether it would be accepted or not, and according to my way of thinking, when you were voting for Minnesota you really were voting whether to accept the substitute motion or not, which throws this all out of order.

DR. WEADON: You are the one who is out of order.

DR. SCHMIDT: I would like a ruling from the Chair on this.

PRESIDENT WIGHT: Well, I think we voted all right.

DR. NEWSOM: I am not going to give you a chance to vote on the next item. This is merely for your information.

Dr. Arburua appeared before us and discussed the origin of the Caduceus and the appropriateness of our using it as an emblem, and since we didn't know as much about it as he did, we decided to refer it to a committee for study and report next year.

Dr. Wegner appeared before us and offered a resolution which was brought about by the inability of the State College of Washington to get steel for its new veterinary building. I will read the resolution:

"WHEREAS, It has come to our attention that it may be necessary to limit the use of steel and certain other materials for non-defense purposes, in the interests of our defense program, and we realize the wisdom of measures that have for their purpose the conservation of these materials; and

"WHEREAS, it has come to our attention that small amounts of steel and other materials are needed in the construction of buildings to be used for teaching veterinary medicine on some of our college campuses, and without which it will be impossible to secure the completion of buildings now contemplated or actually under construction; and

"WHEREAS, veterinarians have been desig-

nated essential to our national defense, as evidenced by the consideration given veterinary students when called for induction into military service and the deferment of veterinarians engaged in protecting the health of our livestock or in food-inspection work, protecting the health of our people; therefore, be it

"RESOLVED, that we recommend that steel and other materials essential to veterinary building construction be released as needed, in order that veterinary education may be encouraged and improved, since this constitutes a strengthening of our preparation for national defense."

The Board recommends this to you for your approval.

DR. HUSMAN: Mr. Chairman, I move the House approve the recommendation of the Executive Board.

... The motion was seconded by Dr. McDory, was put to vote and was carried ...

DR. NEWSOM: Next is a resolution from the Committee on Parasitology. I had expected to have this resolution written out and handed to me before this time. I have not received it, but I can at least give you the sense of it.

The Committee on Parasitology feels that it would be very desirable to have a more thorough study made of the nomenclature to be used in parasitology and a publication as a result of this study. Of course, it had in mind to some degree the Association spending some money on this problem, but as you will find out later, the Association has no money, apparently, for this purpose.

So, the Board recommends that the United States Bureau of Animal Industry be requested to make a study of parasitologic nomenclature, and when that is finished to publish a bulletin including the results of their labors.

The Board recommends this resolution go to the Bureau of Animal Industry.

PRESIDENT WIGHT: You have heard the recommendation. What is your pleasure?

DR. KRILL: I so move.

... The motion was seconded by Dr. Potter, was put to vote and was carried ...

DR. NEWSOM: All right, the next one you can chew over.

The Board recommends that in view of our serious financial situation, the dues be raised from \$5.00 to \$7.00 per year.

PRESIDENT WIGHT: You have heard the recommendation. What is your pleasure?

DR. SCHMIDT: I make a motion that the dues be raised to \$7.00.

... The motion was seconded by Dr. Barnes of Kentucky ...

DR. NEWSOM: I think I can speak to the House on this. We have been dealing with a rather serious financial situation, due to the fact that they have increased the expenses of the central office, and we find ourselves now not being able to allot any money to publicity for next year.

We published a new journal during the past year. We estimated that this new journal would cost us about \$2,500 for the year. It will actually cost, before we get four issues out, nearer \$5,000. There is little income from this publication because it does not take

advertising. The only income is subscriptions. Of course, we hope to increase the subscriptions, but there is a deficit there.

We have been spending \$4,000 a year for publicity and I think you have seen the evidence of that expenditure, and the Board would like to continue spending a fair sum for publicity.

We had expected to be able to reduce the expenses of the central office a little next year, but with the two journals now, instead of one, that seems impossible. So, the budget that will be presented to you this evening will contain nothing for publicity this year.

If this motion is passed, it will not go into effect until 1943, so it won't help us out in the year immediately coming, but we did feel that due to the need of more money for conducting the affairs of the Association, and particularly for an extension of our publicity program, that it was essential that the dues be raised, and I will say that we discussed this a great deal. We discussed it a good many times during past years, for that matter, but we finally came to the conclusion that this is the appropriate time and that the necessity is here.

PRESIDENT WIGHT: Any further discussion on this motion to increase the dues at the beginning of 1943 from \$5 to \$7 per annum?

DR. SCHMIDT: I would like to talk on that motion. Probably is isn't necessary. It is possible that you gentlemen all understand that costs of everything are going up. Also, you must realize that an association of this size and activity can't run on \$5 per member a year, especially when you consider that your magazine must cost—I don't know how much.

SECRETARY HARDENBERGH: About \$4.58.

DR. SCHMIDT: That is allowing 42 cents to run this association for every member, plus what money can be obtained otherwise.

There isn't any organization in the United States that could run efficiently on 42 cents, even the Farm Bureau demands \$10, and the unions, for instance, have more. Any other organization has more.

If you want your veterinary organization to amount to something, if you want your profession to amount to something in your own communities, you have to pay for it. Furthermore, you must anticipate such a move.

I received a resolution from my organization that I should go as high as \$10, but there I should quit. For that reason, I figure that \$7 is a small raise and should be supported.

DR. NEWSOM: I want to correct myself. I did not present this in quite the proper way. This must necessarily be an amendment to the by-laws. I should have presented it as such. That is why it has to lay over. So it really isn't up for a vote now. It has to lay over a year.

PRESIDENT WIGHT: Then we should not take a vote?

DR. NEWSOM: No.

PRESIDENT WIGHT: I am glad it came up. It gives us an idea of what is in the wind. It will have to lay over a year as an amendment to the by-laws.

FRANK H. BROWN (Indiana): May I make this suggestion, that the secretary inform the

president or secretary of each state association as to the idea and the cause that is bringing this about, that it may be discussed, and we may come back here better prepared to vote on it next year? That is the sentiment of our group. They should know why this is being done.

DR. SCHMIDT: This will give us time to contact every association. I am sure it should pass, and in fact, I think it could have been a little higher.

DR. NEWSOM: One other item, a bill has been introduced into Congress as House Bill 5531. I can give you the sense by reading one paragraph:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, whereas (1) it has long been the policy of the Federal Government to protect the public health and welfare from the inroad of infections, contagious, or communicable animal diseases either by prohibiting the importation of animals or their products from disease-infested foreign countries or by regulating their importation at established quarantine ports by direct action on the part of the Federal Government or through joint and cooperative effort of the Federal and State Governments respecting interstate shipments; (2) it is in the interest of the public health and welfare that every means shall be taken to preserve the comparative disease-free position of the United States in respect to the infectious, contagious, or communicable diseases of animals which may be transmitted in one form or another to humans and other animals; (3) to this end the Congress and the majority of the legislatures of the States have appropriated annually huge sums of money for the purpose of carrying on work in the control and eradication of such diseases among animals in this country and have taken steps to prevent the outbreak of such diseases which have not prevailed in the United States; (4) in the single instance of bovine tuberculosis the joint efforts of the Federal and State Governments have reduced the incidence of this disease to a few scattered and localized areas; (5) many of such diseases are known to be widespread in several foreign countries where little or no effort is being made to stamp them out; (6) many of such diseases are communicable not only through the animal itself but through the products thereof such as the hide, meat, muscles, tissue, the lacteal secretions of ruminants, through bedding such as hay or straw, through fodder, the animal's feces, and other mediums; and (7) to adequately protect the public health and welfare from the possible spread of these diseases to the United States the danger of infection, contagions, and communication of such diseases must be met at their source, namely, the country of origin of such animals and products; therefore, to accomplish the vital objective of safeguarding the public health and welfare from the inroad of such infectious, contagious, or communicable diseases it is hereby declared to be the policy of Congress to prohibit the importation into the United States of animals, their products, unpasteurized

milk or its edible products from foreign countries where such diseases are prevalent and to otherwise regulate the importation of such animals and products."

Then it goes on to explain the manner in which this might be determined, empowering the Bureau of Animal Industry to locate proper veterinary inspection in these countries, to determine the point. This matter was brought to us by Dr. Hendershott. The Board recommends a resolution which would approve the passage of this bill.

PRESIDENT WIGHT: You have heard the report on this bill pending in Congress, regarding the importation of livestock and livestock products, and that the Executive Board has approved it. What shall the House of Representatives do? What is your pleasure?

DR. CUSHING: Mr. President, I think there is just one thing for us to do and that is to approve it. I so move.

... The motion was seconded by Dr. Weadon and Dr. Zepp.

DR. KESLER: Do you know, Mr. President, whether or not that has been referred to the Department of Agriculture for comment, and what the comment has been?

It is customary to refer such matters to the department involved, and to obtain the opinion of that department.

PRESIDENT WIGHT: It has not had time yet, Colonel. It will come in the usual round later. The thought was to have this association consider it, and if they thought they should endorse or approve it, say so.

Now, the Executive Board has gone into it quite extensively, I understand, and listened to different reasons why it should be supported. Of course, it is a very detailed bill. By the time it gets going, it will probably read somewhat differently. But the thought is what I am talking about.

Any further discussion?

DR. SCHMIDT: I hate to keep getting up all the time, but I think we should pass this bill even though it has not been perused by the Department of Agriculture, because we are in assembly now and we can pass such a resolution. I think the Department of Agriculture would not resent such a move.

I had the privilege of scanning over this bill and it is pretty iron-clad. It keeps the control of the introduction of meat products where that control belongs. It will prevent that control from getting into the hands of another department. It controls all of the different sections of any foreign country, irrespective of whether one part of the country is clean and the other part is not.

If the danger exists, it is up to the veterinarian to determine if that danger exists. So I think it should be passed. To me it looks like a very good thing.

J. B. McQUOWN (Arizona): Mr. Chairman, I thought T. B. was mentioned. I presume that it would necessarily mean that these animals would be tuberculin tested before entering the United States or any state. I am wondering how that would affect the case of Arizona, where at the present time they are importing Mexican cattle without any tuberculin testing.

DR. SCHMIDT: I think that is taken care of, as I read it. Where there isn't proper inspection, inspection must take place at the port of entry; not only that, those are minor things we don't have to worry about because the Department of Agriculture will see that those things get in. If your representative doesn't see to that, then you will have to get a new one.

... Calls for question ...

... The motion was put to vote and was carried ...

PRESIDENT WIGHT: I will ask Dr. Hardenbergh, who is a member of the Committee on Budget, to read the report of that committee.

SECRETARY HARDENBERGH: Even though I am a member of the Committee on Budget, I want to say that the central office is responsible for the disbursements of the Association's funds according to the recommendations made by the Committee. I do, in addition, appreciate the fact that the Committee met early and discussed, for parts of three days, the financial condition of the Association, and what may be necessary to put us on sound footing.

I think that Dr. Wight, as chairman of that committee, can be proud of the fact that even though we have proposed an amendment to increase the dues, we have been able to work out, for the period prior to when the increase may become effective, a balanced budget toward which we will certainly work.

... Dr. Hardenbergh read the report ...

SECRETARY HARDENBERGH: The \$1,000 we have in there is to pay for the publicity attendant upon this convention, which is an item of this fiscal year.

PRESIDENT WIGHT: You have heard the report of the budget committee, what is your pleasure?

DR. KRILL: I move it be adopted.

... The motion was seconded by Dr. Zepp ...

PRESIDENT WIGHT: It has been moved and seconded that the report of the budget committee be adopted. Is there any discussion?

DR. FLYNN: Mr. Chairman, I am not quite clear on this budget in some of the items. It would appear to me that the new journal that has been adopted is at the present time at least an expenditure of something like \$2,500 to \$3,000, in addition to the income.

SECRETARY HARDENBERGH: That is not strictly so, if I may answer. The subscription returns on the research journal this year were just about \$750 short of paying for the cost of about \$5,000 that Dr. Newsom mentioned.

DR. FLYNN: I listened to the recommendation here from the Executive Board to raise the dues to \$7, to take place in 1943. Well, I am inclined to think that in 1943 that \$7 will not begin to take care of the expenses of operating this association. This association is getting larger and much more difficult to handle from the standpoint of expense, and I am inclined to think that possibly it will be necessary to make the dues \$10 instead of \$7 in 1943; to make an amendment, it would then be necessary to put it off for another year. I think that to make that safe, the Executive Board

Report of Committee on Budget (For Fiscal Year 1941-1942)

AVMA FUND

INCOME

Dues (50%)	\$17,000.00
Convention	6,000.00
U. S. Bond interest.....	1,000.00
Reprints	1,500.00
Keys and emblems.....	1,500.00
Directory	200.00
	\$27,200.00

JOURNAL FUND

Dues (50%)	\$17,000.00
Advertising	16,000.00
Subscriptions	4,900.00
	\$37,900.00

RESEARCH JOURNAL

Subscriptions	\$ 5,925.00
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Total **\$71,025.00**

AVMA

EXPENSE

Miscellaneous expense (50%)*....	\$19,537.50
Convention	8,325.00
Reprints	1,200.00
Keys and emblems.....	1,000.00
Directory	125.00
	\$30,187.50

AVMA JOURNAL

Miscellaneous expense (50%)*	\$19,537.50
Printing	11,000.00
Paper	3,500.00
Cuts and etchings.....	1,200.00
	\$35,237.50

RESEARCH JOURNAL

Printing	\$ 4,000.00
Paper	600.00
Cuts and etchings.....	900.00
Envelopes	100.00
	\$ 5,600.00

Total **\$71,025.00**

*Miscellaneous expense is divided between

AVMA and Journal Funds and comprises:

Salaries	\$20,000.00
Postage	3,400.00
Rent and light.....	2,800.00
Stationery and office supplies.....	2,625.00
Telephone and telegraph.....	350.00
Audit	500.00
Bank collection charges.....	200.00
Insurance and surety bonds.....	200.00
Miscellaneous	1,325.00
Furniture and equipment.....	200.00
Legal fees	300.00
Taxes	675.00
Reporting	500.00
Publicity	1,000.00
Travel	5,000.00

Total **\$39,075.00**

50% **19,537.50**

Respectfully submitted,

A. E. WIGHT, Chairman.

I. E. NEWSOM,

M. JACOB,

J. G. HARDENBERGH.

should have deemed it advisable to make the recommendation that the dues be made \$10 instead of \$7.

Now, I am speaking in favor of increasing the income. I am also going to speak in favor of watching pretty close the outgo.

We have an item there of something like \$20,000 for office expense. I would like to ask, too, as a matter of information for myself and for the rest of you, to know just how the \$20,000 is to be apportioned. That is approximately one third of our income. It may be absolutely necessary and it may be all right. Twenty thousand dollars maybe isn't enough for that item, but I could vote more intelligently on the adoption of this report if I knew a little more about how this is apportioned. In other words, it is rather a blanket proposition and I don't know just how we are voting or what we are voting on.

I hesitate to vote in favor of the adoption of the report of the budget committee until I am better informed as to how that portion of it in particular is to be handled, how it is to be distributed.

SECRETARY HARDENBERGH: Do you mean the miscellaneous expense or do you mean the salary item?

DR. FLYNN: There is a \$20,000 item.

SECRETARY HARDENBERGH: Twenty thousand dollars for salaries. That is correct.

DR. FLYNN: It is hard to put out something, to hand to these delegates, to discuss those things, and tell us from a verbal report, because there is so much to a lengthy budget report, you can't carry it in your mind. There are items there that are hazy and we would like you to clear them up.

SECRETARY HARDENBERGH: Would you like a breakdown of the salaries? Is that what you want?

DR. FLYNN: Yes, I think this body should have that information.

SECRETARY HARDENBERGH: I shall be very glad to give it to you. We have prepared this analysis and it was used by the budget committee.

We have prepared an analysis of the salaries of every office employé. Beginning January 1st, in order to meet present competition in getting personnel for our office, and in view of the salaries being offered even to girls graduating right out of business schools, and stepping into well-paid jobs with the government and other institutions which are paying more money than we have been paying, we feel that every employé who merits continuation on the payroll, merits a little encouragement in salary. These are modest increases that we are recommending.

These figures are the breakdowns of salaries of all employés, showing them on a monthly basis, a six-month basis for the rest of this calendar year, and what is anticipated for the first six months of 1942, or the second six months of the fiscal year.

... Dr. Hardenbergh presented the analysis,

the total salaries for the fiscal year as budgeted being as follows: executive secretary, \$8,100; editor, \$4,000; assistant editor, \$1,950; four secretaries and stenographers—\$1,470, \$1,320, \$1,020, \$960, respectively; circulation and mailing clerk, \$1,230; extra help, \$450 . . .

DR. HARDENBERGH: This makes a total of \$20,500; the Budget Committee reduced it to \$20,000, the amount recommended for this item.

PRESIDENT WIGHT: Any more questions?

... Calls for question . . .

PRESIDENT WIGHT: We are adopting the budget as reported by the Executive Board. All those in favor please say "aye."

... The motion was put to vote and was carried . . .

PRESIDENT WIGHT: The next item is the report of the Committee on Legislation.

... Dr. Hardenbergh presented the report of the Committee on Legislation [to be published in Nov. 1941 issue] . . .

PRESIDENT WIGHT: Thank you.

There is one more standing committee that has not been heard, and that is on resolutions. Dr. D. M. Campbell is the chairman. He regrets that he can not be with us. He asked someone to prepare his report. I named Dr. William Moore, who will read that report. Will you come forward, Dr. Moore?

DR. MOORE: I have here all of the resolutions that have been submitted to the resolutions committee, four in number, none of which, I believe, are controversial, and with your permission I will read them all and let you act on all of them at one time, if that meets with your approval.

... Dr. Moore read the prepared report [to be published in Nov. 1941 issue] and moved its adoption . . .

... The motion was seconded by Dr. Schubel of Michigan . . .

PRESIDENT WIGHT: It has been moved and seconded that these four resolutions be adopted.

... The motion was put to vote and was carried . . .

PRESIDENT WIGHT: While Dr. Moore is here, he also has a short report on his other committee, Veterinary Participation in National Defense.

... Dr. Moore presented his report [to be published in Nov. 1941 issue] and moved that it be adopted . . .

PRESIDENT WIGHT: You have heard the report of Dr. Moore's special committee.

... The motion was seconded by Dr. Ivens, was put to vote and was carried . . .

PRESIDENT WIGHT: Now, Dr. Baker has not been able to be with us. I think he is in the room now. He has a special committee report on parasitology. Dr. Baker.

D. W. BAKER: Mr. President, members of the House of Representatives: Last year the report of the Committee on Parasitology was given in an abbreviated form. The Committee at that time was not called upon until very late in the meeting, so we gave an abstract of our report. The report given last year included

a group of recommendations, and these recommendations have been given some consideration by the Executive Board. We wish at this time to heartily endorse the action that was taken relative thereto by the Executive Board.

I might say, personally, that we congratulate the Executive Board on their ingenuity in handling this matter.

As Dr. Newsom reported, we had in mind the publication of a report of some kind that would probably require a large investment, and if it is possible to persuade the Bureau of Animal Industry to do this, we feel that it is the best way out.

Tonight I have only a short report, and I won't keep you very long.

... Dr. Baker continued, reading the prepared report [to be published in Nov. 1941 issue] ...

... It was voted, on motion by Dr. Husman, seconded by Dr. McAduy, that the report be adopted ...

PRESIDENT WIGHT: There is a short report of Dr. Axby's special Committee on Interstate Shipment of Live Stock by Truck.

Dr. Axby has prepared this report and I will ask Secretary Hardenbergh to read it.

... Secretary Hardenbergh read the prepared report of the Committee on Interstate Shipment of Live Stock by Truck ...

PRESIDENT WIGHT: You have heard the report. What is your pleasure?

... It was voted, on motion by Dr. Krill, seconded by Dr. Weadon, that the report be adopted ...

PRESIDENT WIGHT: The other matter I would like to call for right now is Dr. M. B. Starnes' report. That is the special Committee on Food Hygiene.

SECRETARY HARDENBERGH: We don't have a report.

PRESIDENT WIGHT: We have no report from that committee, which is a special committee.

In this connection, practically all of the special committees have been recommended for continuance, and I would entertain a motion that these special committees—about ten—be continued during the next year.

DR. HUSMAN: I so move.

... The motion was seconded by Dr. Ivens, was put to vote and was carried ...

PRESIDENT WIGHT: Is Dr. Biester here? (Not present.)

The next thing is action on proposals for honorary memberships. We had that before the Executive Board, didn't we?

DR. NEWSOM: It passed. We didn't vote it. It is to be voted on tonight.

PRESIDENT WIGHT: One is Secretary Wickard, the other is Professor Rice of Cornell and the other is Professor Rettger.

Those three names were presented and all that is required here is, if there is no objection, to move that these men be made honorary members.

DR. BARNES (Kentucky): I move they be made honorary members.

... The motion was seconded by Dr. Ivens, was put to vote and was carried ...

PRESIDENT WIGHT: That seems to be all on my list.

DR. POTTER: Just as a matter of information, has the member-at-large been elected for the Executive Board?

PRESIDENT WIGHT: He carries over.

SECRETARY HARDENBERGH: He has one more year to serve.

DR. ZEPP: Mr. Chairman, I wish to call to the attention of this assembly the action that was taken on the first night that we met, on proposal No. 1, to add a new paragraph to section 3, article VIII of the administrative by-laws.

In my opinion the action we took on that proposal was unconstitutional, for the reason that it was not submitted at the Washington meeting. Due to the fact that it deals with corporate officers, it can not be handled the same as an amendment to the by-laws in the regular manner. It specifically states in article XIII as to amendments:

"Section 1.—The administrative by-laws may be amended at any annual session by the same procedure as that provided for amending the constitution.

"Section 2.—Excepting the sections affecting the corporate officers provided in the constitution, any part of the administrative by-laws may be temporarily suspended by a two-thirds vote of the House of Representatives.

"Section 3.—Excepting sections affecting the corporate officers provided in the constitution, the administrative by-laws may be permanently amended at any annual session by submitting in writing, notice thereof to all the membership 90 days prior to the annual session at which final action is to be taken. Publication of proposed amendments in three consecutive issues of the JOURNAL shall be regarded as due notification to the members."

Now, the Executive Board members are corporate officers, and in proposal No. 1 you will notice that we have given the president authority to appoint to fill any unexpired term on the Executive Board. We conferred that authority. That is taking the right of representation entirely away from the district supposedly represented. For that reason a lot of our constituents back home are going to object to our passing proposal No. 1.

Therefore, I make a motion that we reconsider this proposal. It was not presented at Washington, it is not constitutional; therefore, our action was not legal at the other meeting.

... The motion was seconded by Dr. Barnette of South Carolina ...

DR. ZEPP: Irrespective of what the changes were, the fact that it deals with corporate officers makes it unconstitutional, because it would have to have been submitted at the

Washington meeting. It can not go through the same procedure as an amendment. It excepts corporate officers and can not be acted upon in the same manner, no matter what additions we may have made. It is illegal, and until our constituents have a chance to O. K. it, have a chance to O. K. an action of that sort, I would not want to be one to agree to act on something which is unconstitutional.

PRESIDENT WIGHT: There is a motion before the house and it is now open for discussion.

DR. CUSHING: Mr. Chairman, I think there is a point of interpretation in article XIII, sections 1 and 2. Section 1 says that the administrative by-laws may be amended at any annual session by the same procedure as that provided for amending the constitution.

Section 2 reads: "Excepting the sections affecting the corporate officers provided in the constitution, any part of the administrative by-laws may be temporarily suspended by a two-thirds vote of the House of Representatives."

I don't think the interpretation of section 2 is that the exception is to be exception of section 1, but exception of the second part of section 2.

PRESIDENT WIGHT: Any further discussion? I don't recall the exact wording, but as Dr. Zepp said, that is immaterial.

DR. ZEPP: This is the way I copied it in: "The appointee shall serve until such time as a proper election can be held to fill the unexpired term."

As short as possible, but to me, Dr. Wight, we as a group of delegates here have acted on something that was not set up constitutionally.

The other point is this: We are acting for a district which has representation here, taking something out of their hands in case of a vacancy. If the vacancy has to be filled, we should set up some means by which that district can fill the vacancy themselves. They are entitled to that representation. I think it should be properly arranged that the district can, and it is easy to do it, but I am considering the proposal which we acted upon. In my opinion it has been acted upon unconstitutionally.

E. W. MEADS (Oklahoma): I think the motion, as passed, was to be acted on at the next meeting. The president is to call an election of the district as soon as possible, except of the member-at-large, who is to be elected at the next annual meeting. I think that motion was passed Monday afternoon.

PRESIDENT WIGHT: It was passed.

DR. CUSHING: Mr. Chairman, it seems to me that if we did this thing unconstitutionally on Monday, that the unconstitutional part of it is the fact that that addition, which was, I believe, the wording as submitted by Dr. Flynn, has not been published to the membership at large. I don't think the exception can be taken under article XIII.

DR. WIGHT: I would like to have Dr. Newsom speak on that. He is the chairman of the Board. I did not have much to do with this part.

DR. NEWSOM: I think I understand what it is all about, but I am not prepared to answer the question. In other words, it is not a question of what we passed, it is a question of whether anything we passed was legal because it dealt with corporate officers. I am not prepared yet to answer that. I am sorry.

DR. BROWN (Indiana): What can we do, Mr. Chairman, to make the thing any more safe than it is?

PRESIDENT WIGHT: Well, the way it stands now, as I see it, an election can be held.

DR. ZEPP: I think that we can not act on this because it is illegal. Therefore, we have to drop it and carry out the natural procedure of the constitution and by-laws and take immediate steps to elect members to the Executive Board to serve from the districts which had vacancies following the Washington meeting. Our constitution and by-laws supply us the means to carry that out. It could have been done last year. That is what should be done.

But this proposal is unconstitutional. If it is in order to correct the proposal we passed at the Monday night meeting, since it is unconstitutional, I would move that it be taken from the record, or deleted, and that the executive office proceed to conduct elections for members of the Executive Board from the districts in question (Nos. II and IX) as the constitution and by-laws of our organization provide.

... The motion was seconded by Dr. Barnette ...

PRESIDENT WIGHT: Do any of you gentlemen want to discuss this now?

DR. BARNETTE: I think, as Dr. Zepp says, we will have to delete what we passed on Monday and leave it as it is.

PRESIDENT WIGHT: I would like to have some more discussion.

DR. ZEPP: This is only a suggestion because of the late hour. It can be submitted later—that the presidents of the various district associations be immediately notified of the vacancy, and that they be requested, according to their vote in membership of the various states, to supply the member until an election can be held.

PRESIDENT WIGHT: But we already have a motion. The motion is this, made by Dr. Zepp, that in view of the fact that the action taken on proposal No. 1 is unconstitutional, it be withdrawn or rescinded, and that the executive office arrange for elections for filling places made vacant in districts since the Washington meeting.

Is that clear enough? That has been moved and seconded.

DR. KELSER: Dr. Wight, I think the first

thing you would have to do is to move a straight motion to reconsider.

PRESIDENT WIGHT: It has been moved and seconded that this action taken Monday night be reconsidered. All in favor say "aye."

... The motion was put to vote and was carried ...

DR. FLYNN: Mr. Chairman, I move now that the action taken by the House of Representatives on proposal No. 1 be rescinded and that we proceed to instruct the Executive Board to proceed with an election to fill vacancies that have occurred since the Washington meeting. I would like to add a little more to that, but I can make another motion further on.

The situation as it stands now, to make it clear so that some of the delegates who possibly don't understand it may be clear on it, there are two districts in which there have been appointments to the Executive Board. Instead of holding an election, the president appointed a member, and the Executive Board did not hold an election according to the constitution and by-laws. Now, we are asking them to proceed, and of course, it will be at as early a date as possible now, because that has gone over the dam, and what has gone over the dam is gone.

... The motion was seconded by Dr. Zepp and Dr. Husman ...

DR. POTTER: Mr. President, would not any action that we might take now be equally unconstitutional? If we make further recommendations, would they not have to lay over another year?

DR. ZEPP: We are only making recommendations on the action taken on proposal No. 1 by this board. No constitutionality has been established, in my opinion. We are only taking action to rescind or to correct a mistake we made on Monday night.

PRESIDENT WIGHT: And you figure that the Board has authority or should call an election?

DR. ZEPP: According to the constitution and by-laws.

DR. FLYNN: Now, yes.

PRESIDENT WIGHT: Is that clear, Dr. Potter?

DR. POTTER: Then, I think all we have to do is to leave it as it is.

PRESIDENT WIGHT: All we have to do is rescind.

DR. FLYNN: My motion was that this body instruct or request the Executive Board to proceed with an election.

... Calls for question ...

PRESIDENT WIGHT: Is that in your first motion?

DR. FLYNN: That was my original motion.

PRESIDENT WIGHT: That the action on proposal No. 1 is rescinded because it was to be reconsidered, and that the Executive Board prepare and arrange for an election in the districts, vacancies in which have occurred since the Washington meeting.

DR. FLYNN: Correct.

... The motion was put to vote and was carried ...

DR. HUSMAN: I move that the original proposal as read, No. 1, be offered as an amendment at this meeting, to lay over as an amendment for a year.

... The motion was seconded by Dr. Flynn ...

PRESIDENT WIGHT: Any questions regarding this proposal?

DR. HUSMAN: The original proposal submitted the other night is now being amended, to be acted on at the next regular meeting.

DR. FLYNN: Just a moment. That motion is really not in order, because all that is necessary is to present that without a motion. There shouldn't be any motion.

DR. HUSMAN: I am offering it as an amendment to be acted upon next year.

DR. FLYNN: You offer an amendment, but no motion is necessary.

PRESIDENT WIGHT: It is carried as a proposed amendment. We will do that.

DR. SCHMIDT: As long as we have a discussion here, I would like to entertain a motion that this question be taken to some competent attorney for a legal interpretation, so that this organization can go ahead without this petty stuff and so that we can spend our time here on larger problems.

PRESIDENT WIGHT: Do you want to make that as a motion, Dr. Schmidt?

DR. SCHMIDT: Yes.

PRESIDENT WIGHT: What is the motion?

DR. SCHMIDT: I move that this question be referred to a competent attorney who specializes in interpretations of this type of question. Get a legal interpretation. It probably would not make any difference, but settle that question for all time in the future.

DR. FLYNN: Mr. Chairman, that motion is out of order because that is the proposed amendment submitted to this body according to our by-laws and we can't make a motion to do anything about it.

PRESIDENT WIGHT: This is a different thing.

DR. SCHMIDT: I am speaking about the things that have gone by. Get that settled so it is settled for once and for all; that proposal can be proposed and has to be voted on next year.

PRESIDENT WIGHT: I think, Dr. Schmidt, that our executive secretary can get legal advice on this.

DR. SCHMIDT: If it isn't seconded, that is the end of it.

PRESIDENT WIGHT: That is the end of that. I see nothing more.

I understand we have a little business after this.

... It was moved by Dr. Zepp, seconded by Dr. Husman, that the House of Representatives stand adjourned ...

PRESIDENT WIGHT: Now, we have to go into general session for a few minutes.

... The session adjourned at 9:10 p. m.


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An' Related Topics

The Physique of Drafted Americans

Since the veterinary service coöperates closely with the agencies engaged in maintaining the health of the population, it is logical for us to study the physique of the general population as disclosed by the medical examination for draftees.

According to the Public Health Service (*Public Health Reports*, Jan. 10, 1941), among the second million drafted in 1918, 21.3 per cent were rejected as unfit, 9.9 per cent were partly unfit, and 52.1 per cent had defects of various degrees. The upshot was that 31.2 per cent were unfit for general military service.

Leaving out the endless list of grave infirmities rendering men physically unfit for almost any kind of physical duty, the report points out that defective vision, under weight, tuberculosis, dental defects, hernia and venereal disease rank high in depreciating the military strength of our nation. Given in the rate per 1,000 for which draftees were rejected or accepted for limited service, the figures are: defective eyesight, 40.8; crippled, 38.7; flat feet, 32.4; under weight, 29.6; cardiac or vascular disease, 27.8; deficient teeth, 24.2; hernia, 21; mental diseases, 12.

To what extent hit-or-miss nourishment or insufficient food, is responsible for this depreciation of man power is, of course, problematical but that a more systematic consideration for this factor in the building up of human health is in order, is not debatable in view of the more recent revelations in the science of food hygiene, the science in which the veterinary service is profoundly concerned.

A curious statistician has figured that American hens are producing 60,000 eggs per minute, day and night.

The crime bill paid by the American people annually runs into the billions, which is a good reason for grumbling about the taxes we pay for law enforcement.

(Continued on page xxii)

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An' Related Topics

(Continued from page xx)

To Get Things Done Say "Don't"

When the Secretary of Agriculture told the American people to eat less cheese so that there would be more to send to the British, the result on good authority was prompt increase in domestic demand. Folks who never ate cheese but for the tiny slice garnished gratis on apple pies went human-like at the business of eating cheese in chunks as do the people of Europe. Said a Wisconsin groceryman the other day, "Wickard made my cheese business soar like a rocket."

Reduce the Mutt-Dog Population?

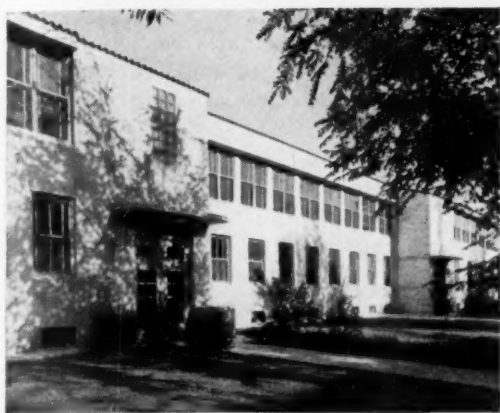
Reducing the mutt-dog population is a problem with two sides, says the *Fresno* (Calif.) *Bee*, since 70 per cent of the mutts are more intelligent than the purebreds, and they don't cost as much. The trouble with dogs, the writer adds, is that most people who like dogs like them too much and tend to abuse the privilege of keeping them, and conversely, those who do not like dogs are inclined to make a bitter issue of them. The best that can ever be hoped for is a compromise, since there is much emotion involved, the writer declares.

Fur Farming and the Old Trappers

In spite of invested millions, the ways and traits of the old trappers live on in the fur-farming industry. Enduring hardship, rugged individualism, resourcefulness, optimism and no quarters for the unfair competitor are deeply rooted in this newest of great agricultural pursuits. Growing up unseen following World War I in the absence of comprehensive regulations and trade protection, fur farming was stymied by World War II when robbed of important export trade, but like the old trapper it carried on to put itself indelibly on the map of big human enterprises. A happy trend is the mounting demand for fur garments which the industry itself created in the realm of fashion.

(Continued on page xxiv)

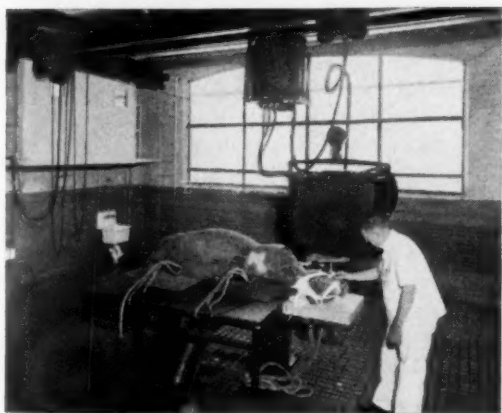
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An' Related Topics

(Continued from page xxii)

Annual Horse Pulling Contests

The announcement that the national horse pulling contest will be held at the New York state fair this year again draws attention to this nationwide attraction which came into being in 1923, when engineers of Iowa State College invented the dynamometer and put it to a test at the Iowa state fair that year. Wayne Dinsmore, secretary of the Horse and Mule Association of America, in seizing this opportunity of testing the pulling power of teams as accurately as speed is timed in racing, deserves the credit of developing interest in these events from coast to coast.

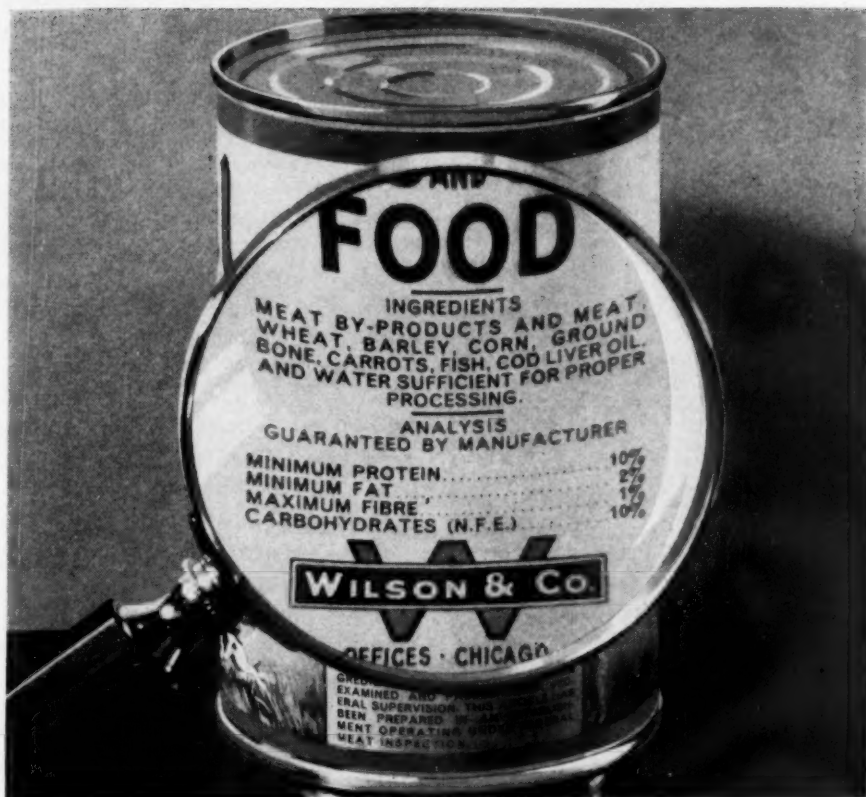
The horse pulling contest is not a mere rivalry for a bit of prize money. It is a means to a better end—the developing of pulling power in draft horses by breeding and training just as speed is developed that way in the Thoroughbred. The horse pulling contest as presented to audiences during the past 15 years has been teaching not only the breeding of the right type of draft horse, but also how to drive a draft team and to fit collar, hames and harness to the best advantage.

The entry weighing less than 3,000 lb. should be the popular one in the future, since the draft horse weighing nearly a ton or more is not likely to be as useful as the handy horse of lighter weight. Moreover, it would be interesting to watch the development of the pulling power of mules. Mules seem to have been boycotted from these strength-testing events.

Cases of rabies in wild foxes have been reported in South Carolina. In country districts several people were attacked by mad foxes.—*Kadra Maysi in Our Dumb Animals.*

In using up 16 per cent of our annual cotton crops for tires, hose and other products, the rubber industry has been a great help to the farmers of the South.

(Continued on page xxvi)



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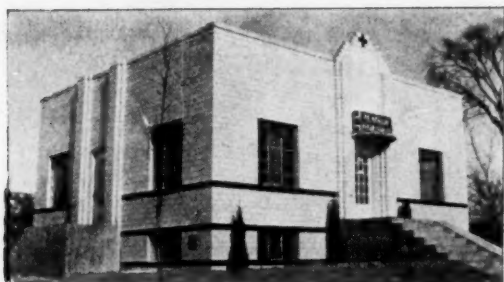
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Copies of this document are available at 15 cents each, postpaid. Orders should be sent on the coupon provided below to the American Veterinary Medical Association, 600 S. Michigan Ave., Chicago, Ill.

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An' Related Topics

(Continued from page xxiv)

Science

I wish them scientists would make up their minds. The first thing they do is tell us everything we do is wrong and then after they studied it for fifty years they decide we were right all the time. Take white and yellow corn, for instance. Farmers have always said yellow corn was the best. The scientists said there wasn't any difference and that we was just notional. Then someone discovered vitamins and found there's lots more in yellow corn, so us farmers was right all the time.—John Turnipseed in *Wallace's Farmer*.

Wartime Health: England

Except for the 80,000 men, women and children massacred, mutilated or gravely shocked by high explosives, the general health of the English people remains excellent, in spite of the crowded air-raid shelters and long working hours. There have been no grave epidemics. Dietary restrictions have probably been beneficial, especially to elderly and sedentary people. The tuberculosis situation is satisfactory; there has been no notable increase ascribable to the war.—*From the London correspondent, J.A.M.A., Aug. 9, 1941.*

Several years ago an Iowa village was all excited about the high incidence of mottled enamel and very little caries in the teeth of the children. The cause was found to be the high percentage of fluorine in the town's drinking water. The flourine was removed and now there is plenty of caries and no mottled enamel.

The dogs of the United States eat about 20 million pounds of food every day. The figure is based upon the estimated number of dogs and their normal daily needs.

(Continued on page xxviii)

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| 1936 Vitamin B ₁ was synthesized in the Merck Research Laboratories. | 1940 Alpha-Tocopherol Merck (Vitamin E) was made available. |
| 1937 Vitamin B ₁ Crystals Merck (Thiamine Hydrochloride U.S.P.) was made available. | 1940 2-Methyl-3-Phenyl-1, 4-Naphthoquinone Merck (Vitamin K ₁) was made available. |
| 1938 Nicotinic Acid Merck (U.S.P.) was made available. | 1940 2-Methyl-Naphthoquinone Merck (Vitamin K Active) was made available. |
| 1938 Riboflavin Merck (Vitamin B ₂) was made available. | 1940 Pantothenic Acid (Member of B Complex) was identified and synthesized by Merck chemists and their collaborators in other laboratories. |
| 1938 Alpha-Tocopherol (Vitamin E) was identified and synthesized by Merck chemists and their collaborators in other laboratories. | 1940 Calcium Pantothenate Dextrorotatory Merck was made available. |
| 1939 Vitamin B ₆ was synthesized in the Merck Research Laboratories. | |

A number of these vitamins have been demonstrated to be of value in veterinary medicine. In some cases, however, sufficient data have not accumulated to provide a satisfactory understanding of their usefulness. Literature on the current knowledge concerning these factors is available upon request.

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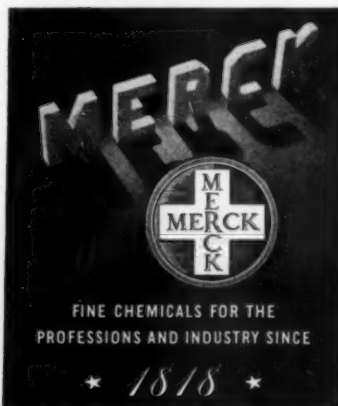
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 Calcium Pantothenate Dextrorotatory Merck
 2-Methyl-3-Phenyl-1, 4-Naphthoquinone Merck (Vitamin K₁)
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An' Related Topics

(Continued from page xxvi)

Alleged Shortage of Chlorine

Chlorinization plays so many rôles in the fields of sanitation, industry, milk production and medicine that the mere rumor of a shortage is a matter of considerable concern, in fact of so much concern that Surgeon General Parran of the U. S. Public Health Service and Director of Priorities Stettinius were impelled to announce that no actual shortage exists. There is an abundance of chlorine, these officials announce, notwithstanding that the Army is using about 30 per cent of the total output. Its use in drinking water, water works, swimming pools, soda fountains, dairying and medical practice need not be curtailed. Only those industries using chlorine for bleaching have been requested to cut down their demands.

Puerto Rico in the last 42 years has not had a temperature under 62 nor above 92 degrees Fahrenheit. Days when the sun fails to shine are rare.

(Continued on page xxx)

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An' Related Topics

(Continued from page xxviii)

The Coming Blitzkrieg

World War II is more likely to spread havoc in the form of epidemic diseases than World War I or the wars of Louis XIV and of Napoleon, when the movement of troops was relatively slow and the ground covered less vast. Malaria, yellow fever, typhus, bubonic plague and other contagions can now be spread more quickly and much further from endemic foci. Dispatches already arriving from Poland and the Balkans are certainly not reassuring in this respect. While there are better methods of controlling epidemics than during great wars of the past, the hazards are much greater. According to opinions expressed in medical journals, there was never a time in all history when a watchful public health service was more needed than now. The coming blitzkrieg is apt to be disease.

(Continued on page xxxii)



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A weekly journal for
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Published by the
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London W. C. 1.

England

Subscription: £2.12.0 per annum, post free.

An' Related Topics

(Continued from page xxx)

Post, Posting, Posted

"Post" is a noun of many meanings, two kinds of verbs, adjective, preposition, adverb and Latin prefix for behind. You can use "post" in many ways, but except in error, its meaning can not be stretched to the carving of mortal remains for inspection. You can say post the guard, the ledger, the letters and the bills and intransitively you can post on horseback. But better not say "post the cadaver" unless you really mean what you said.

Bighorn sheep of the West, like the long-horn cattle of Texas, are making their last stand in scattered herds. The U. S. Fish and Wildlife Service reports that but 14,000 bighorn sheep remain. They are scattered in small herds in Wyoming, Colorado, Idaho, Arizona, Nevada and California, and are zealously guarded by strict laws against hunting.

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